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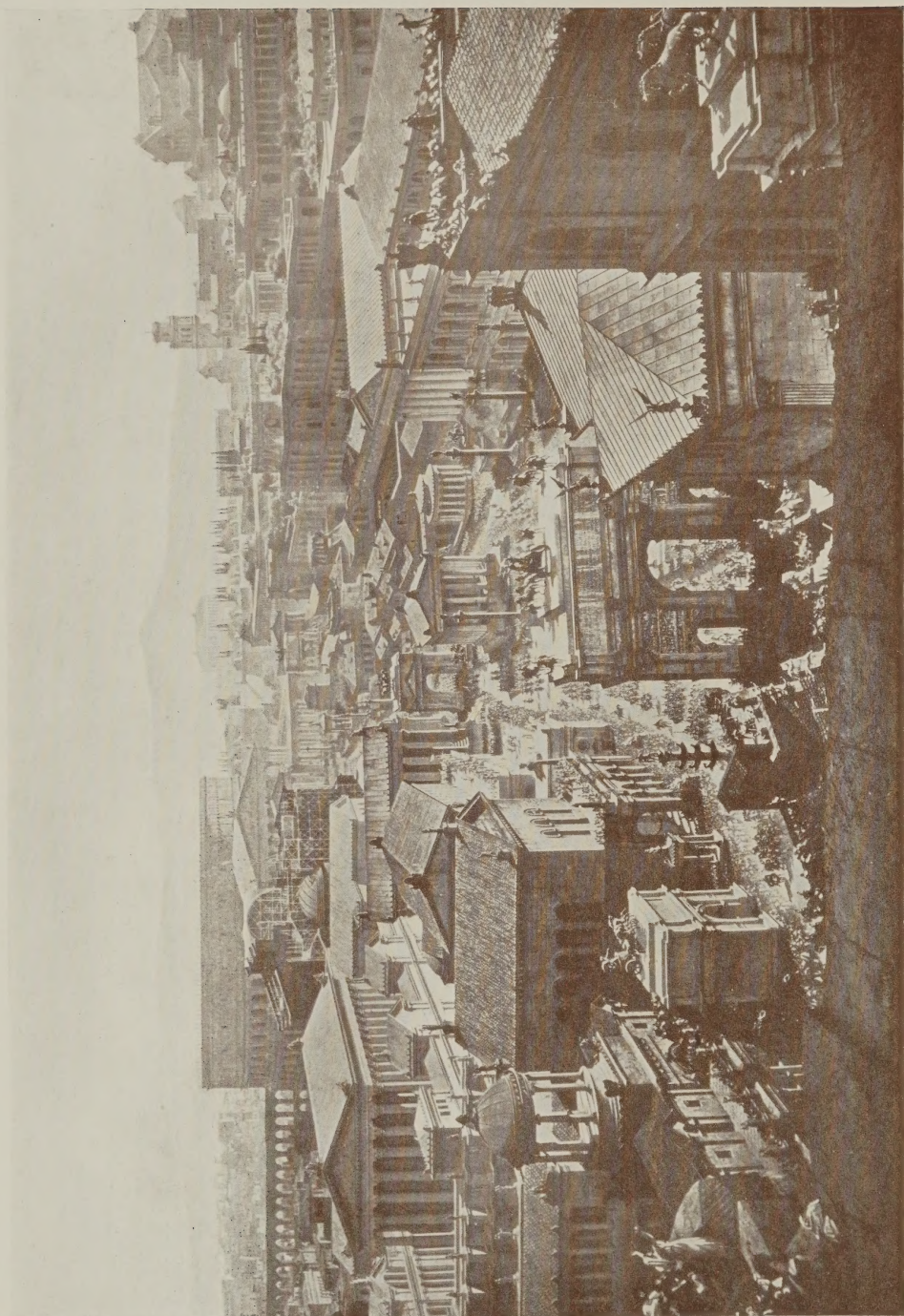
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THE ROMAN FORUM

With the Arch of Septimius Severus in the foreground

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TO

V. 2

REMOTE STORAGE

THE

TOWN PLANNING REVIEW

Vol. II

April, 1911

No. 1

A PANORAMA OF THE FIRST STAGE OF A
SCHEME UNDER THE TOWN
PLANNING ACT (1909)*Introductory*

The following Panorama, as it may most conveniently be called, has been prepared with the object of giving a clear and graphic statement of the amount of work which is entailed in the preparation of the First Stage of a Town Planning scheme according to the Procedure Regulations. It was thought also that the publication of the actual wording of the text of the necessary Notices, Resolutions, Letters, and Statements, together with reproductions of Maps I., II. and III. (to somewhat reduced scale) would also be of service to authorities contemplating the preparation of schemes. Up to the present time, three schemes have advanced to the stage to which this Panorama extends, and have received the approval of the Local Government Board; this has enabled the following article to be produced with a degree of certainty which would not have otherwise been possible. Dates, beginning with January the 1st, have been added.

With a view of giving reality to the article, without at the same time causing any breach of confidence, it was thought advisable to select an actual area, in a probable position, but one for which, so far as could be ascertained, no Town Planning scheme was contemplated. Furthermore, in order to show what the scheme would eventually lead to, it was decided to give a small reproduction, not in colours, of Map No. IV.; this was prepared with the necessary differential colourings and references as prescribed in the Regulations, but it is not possible to refer to these separately, nor in this first stage is it necessary.

The area selected is in the Peninsula of Wirral, a hundred of the County of Chester, it faces the sea and is about $2\frac{1}{2}$ miles from the recently

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incorporated Borough of Wallasey. The possible reasons why such an area might be selected are set forth in the Statement of Particulars on page 9.

A General Survey of the Surrounding District

The selection of such an isolated area, in which development is imminent, and whose character can pretty certainly be foreseen, is quite a natural thing; but at the same time we strongly suggest a General Survey, in this case, of the whole Peninsula of Wirral. This interesting Hundred is bounded on the east by the Estuary of the Mersey, on the west by the Dee, on the north by the Irish Sea, and on the south it is connected by low-lying lands with the rest of the county.

It contains two Boroughs:—

Birkenhead, with a population of about 120,000.

Wallasey, with a population of about 70,000.

The Urban Districts of—

Hoylake and West Kirby.

Neston and Parkgate.

Ellesmere Port.

Bromborough.

Higher Bebington.

Lower Bebington.

The Rural District of—

Wirral.

The greater part of the suburban population of the two Boroughs, and a large proportion of the population of the U. D. of Hoylake, Neston, Bromborough, and Lower Bebington, are suburban to Liverpool, and it is clear that in time the whole area between the L. N. W. and G. W. joint line and the Dee will become one residential suburb of Greater Liverpool.

It is also probable that the frontage of the Mersey from Port Sunlight to Port Ellesmere will develop independently as an industrial area of the first importance, with its own residential area between it and the fore-mentioned railway.

Under the circumstances, it would seem advisable that these various authorities should agree among themselves upon some general line of action for the whole Peninsula, in order that the Town Planning schemes, as they are prepared for different areas, may gradually piece together a complete whole.

The Wirral contains many natural features such as pine woods, old quarries, valley of streams, &c., which might easily be preserved by

judicious forethought ; also many old villages which should come under the heading of Ancient Monuments, and, as such, have their general character as far as possible preserved.

The best course would be to hold a Conference between the various authorities to discuss the general lines of development for the Peninsula. At the Conference a small Commission might be appointed, which should include a Civil Engineer and an Expert on Town Planning. The Commission should be authorised to prepare a Report, the Officials of the Local Authorities being consulted at every stage, and they should supply the necessary statistics and information.

The Report would deal with the delegation of areas for different purposes—Industrial, Residential and Recreationary—and would suggest improvements of communication by Road, Railway, and Tramcar.

A Report of this sort should not prove a costly affair, and might be paid for jointly by the authorities on some proportional basis. The authorities, after adopting or modifying the Report, might embody its features in a general “Plan of Wirral,” copies of which could be possessed by each Local Authority.

The Preliminary Conference could now suspend its operation, and the authorities could turn to their particular districts and map out areas suitable for the preparation of Town Planning Schemes in conformity with this preliminary Survey ; agreeing also if possible to allow of no developments which would contravene the main lines of this plan for Wirral.

The area dealt with in this article might thus be one suggested as ripe for a Town Planning scheme.

In the following imaginary scheme the formal notices, resolutions, etc., follow forms which have been actually settled by Mr. Chaloner Dowdall, Barrister-at-Law, Liverpool. Mr. Dowdall has also perused the proofs of all statements, letters, etc., and they appear to him to be valid in all essentials.

Jan. 1st.

Art. II.

RESOLUTION OF R.D.C. OF WIRRAL
Town Planning Act, 1909.

RESOLVED: that the necessary preliminary steps be taken for (or that a special committee be formed with power to take the necessary preliminary steps for) an application to the Local Government Board for authority to prepare a Town Planning Scheme under the Town Planning Act, 1909, for the land bounded on the North by the Irish Sea, on the South by Hoylake Road, on the East by the boundary of Bidston Parish, and on the West by the Moreton Road, and more particularly delineated and edged with red on the map marked No. 1 (*and that the committee consist of the following.....*)

Jan. 2nd, or latest date Jan. 8th.

Within seven days Clerk to the Wirral R.D.C. notifies Clerk to Wallasey Borough Council of above resolution, enclosing copy of resolution and of Map No. 1. Also Clerk to Hoylake U.D.C.



Say Jan. 2nd.

Art. I.

**NOTICE TO THE FOLLOWING
EFFECT.**

Town Planning Act, 1909.

Notice is hereby given that the Wirral Rural District intend to apply to the Local Government Board for authority to prepare a Town Planning Scheme for the land bounded on the North by the Irish Sea, on the South by the Hoylake Road, on the East by the boundary of Bidston Parish, and on the West by the Moreton Road. And notice is hereby given that a map of the land proposed to be included in the scheme has been deposited at the Offices of the Council, and is and will remain for six weeks open for inspection by any person interested without payment of any fee between the hours of 10 a.m. and 4 p.m., and on Saturdays between the hours of 10 a.m. and 1 p.m.

Signed by Clerk.

This notice is to be inserted in local papers, also in *Liverpool Courier* and *Liverpool Post*.^{*} A similar notice is also to be served personally or by post upon the following people, viz :—

- | | |
|--------------------------------|---------------------------|
| (a) Owners | } whose land is included. |
| (b) Lessees | |
| (c) Occupiers | |
| (d) Councils | |
| (e) County Council of Chester. | |

It is desirable that such notice should be accompanied by a covering letter inviting the views of the recipient, and promising careful consideration thereof.

Where the occupiers are allotment holders or persons occupying premises on very short tenancy, and it is found that the serving of notices on such persons would cause great expense and trouble, the Local Government Board should be applied to for exemption in such cases. Exemption has already been given by the Board at Birmingham in connection with allotment holders, and at Ruislip in connection with occupiers having very short tenancies, under certain conditions.

The notices need not be served by registered post.

Notice should be served on a County Council if any main road is affected by the scheme, within seven days of passing of resolution.

Although not necessary, the Birmingham and Ruislip authorities send a print of Map No. 1 to all the owners and others served with notices, showing the area included edged in colour. This saves lengthy description of the land included (Art. I. c.).

^{*} The daily papers of the nearest large town.

Art. III.

STATUTORY CONFERENCE.

Notice of a conference to discuss the scheme might be given in the covering letter just referred to or separately if a later date is preferred. The regulations require 14 days' notice of the meeting; in many cases it will doubtless be desirable not to have such a meeting until the views of those principally interested have been informally ascertained.

*Wirral R.D. Council Offices,
Birkenhead.*

Moreton Town Planning Scheme.

Dear Sir,

I am instructed to give you notice that you are invited to attend a Conference of those interested in the above Scheme. The Conference will be held at these offices on January 17th at 8 p.m.

*I am, sir or madam,
Yours faithfully,*

Clerk to the Council.

January 17th.

CONFERENCE ACCORDINGLY.

It will be desirable that the Chairman of the Council who is to be chairman of the meeting should be furnished with a preliminary draft of Map No. 2. *He has discretion as to how fully he takes the meeting into his confidence, and to how much of the scheme he thinks it expedient to explain.* But in the absence of special circumstances it will be well to establish full confidence at the earliest opportunity, and to forestall as far as possible all difficulties and obstacles that may subsequently arise.

March 1st.

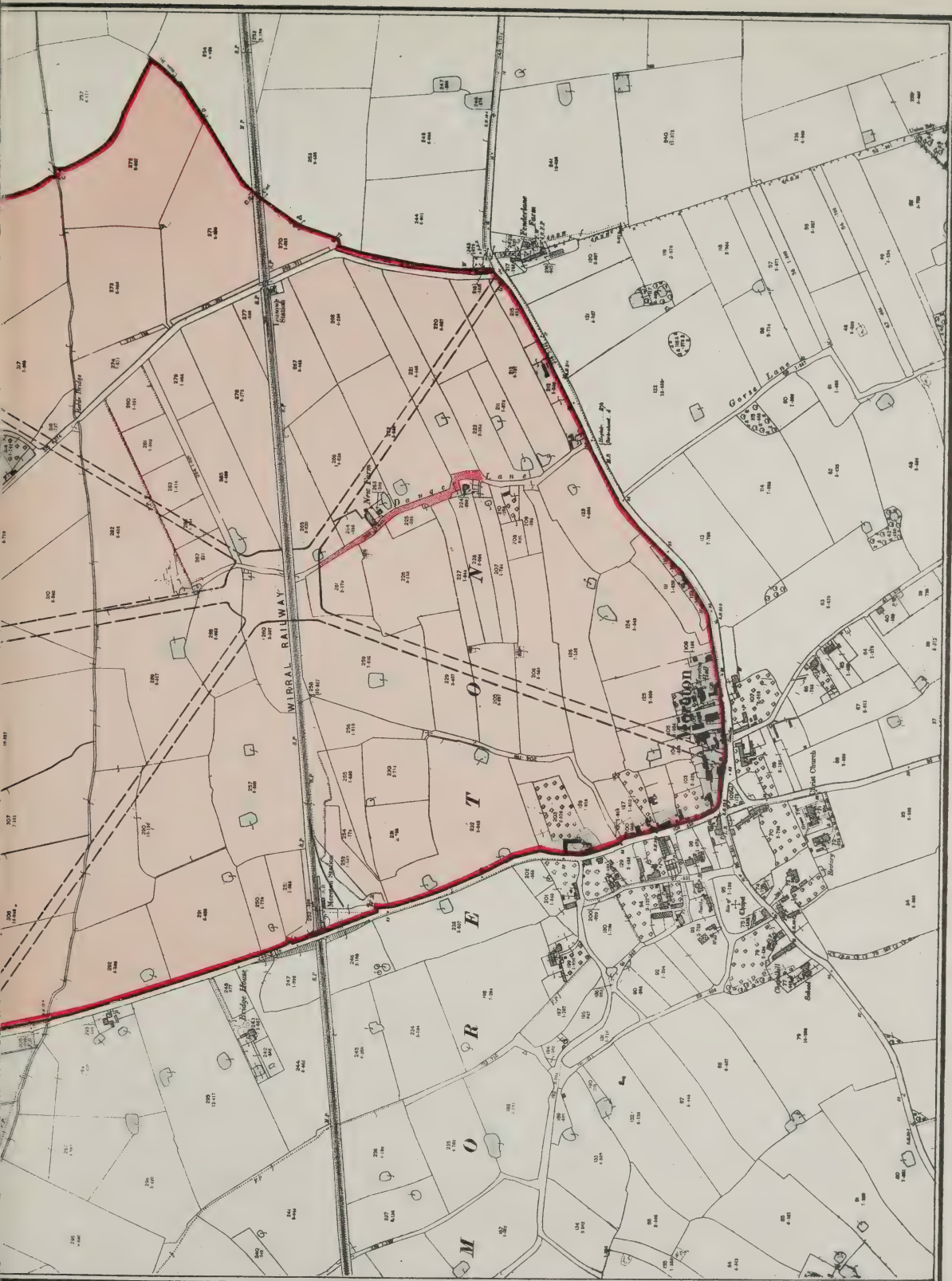
Art. IV.

RESOLUTION OF R.D. COUNCIL OF WIRRAL.

Not less than two months after notification on page 5 the local authority pass a resolution to apply to the Local Government Board for authority to prepare a scheme.

RESOLVED : that application be made to the Local Government Board for authority to prepare a scheme for land bounded by a red line and further illustrated on Map No. 2, and that the scheme be prepared in accordance with the statement and estimates submitted herewith.





Suggested new main roads dotted black (subject to alteration.)
 Land to be developed as residential suburb, pink.
 Land reserved for open spaces, green.
 Existing sewers, thin red line.
 Existing water mains, thin blue line.

Land proposed to be included in scheme enclosed by a red line.
 Portion included in Hoylake U.D.C. area edged dark green.
 Portion included in Wallasey Borough area edged hatched-green.
 Land not likely to be used for building purposes left white.
 Land already built upon, purple.
 Existing roads stopped up or diverted cross-hatched red

Original scale 1:25,000

Art. VIII.

STATEMENT OF PARTICULARS OF
SCHEME.

(a.) The land which it is proposed to include in the scheme is situated in R.D. of Wirral, in the County of Chester, and also includes small areas in the Borough of Wallasey and the U.D. of Hoylake. The land is low-lying and is bounded on one side by the Irish Sea and is traversed by the Wirral Railway, which has a small station at either boundary of the area. Such land as borders on existing roads is already in course of rapid development, and on its southernmost boundary is situated the ancient village of Moreton, which is also in rapid course of development as a suburb of Liverpool.

The total area of the scheme is.....acres of which.....acres are already built upon.

These features—its proximity to the Sea, its accessibility by rail, and the fact that already the initial stages of development are taking place—mark it out as an area likely to be used for building purposes, in so far as it is not already in course of development.

(b) The desirability of the site for a suburb of Liverpool, and the haphazard way in which at present it threatens to be developed, are the reasons which support our application for authority to prepare a Town Planning Scheme, in order to preserve its amenities, and the convenience for traffic, as well as to secure proper sanitary provisions.

(c.) In including a portion of the village of Moreton, land has been included which is already built upon. The special reasons for including this land (coloured purple on Map No. 2) are: (1) As the existing buildings are being rapidly transformed, it has been considered advisable to seek some control over future developments. (2) The amenity of the whole area can only be effectively secured by including portions already developed. (3) Some of the buildings are likely to be affected by the junction of the proposed principal roads with existing roads. Other land not likely to be used for actual building purposes has been included on account of the desirability of preserving such as open spaces. Whilst it has

been the intention to avoid demolition as much as possible it would appear to be necessary to remove several cottages in the village of Moreton in order to provide space for a new road connecting the village with the proposed new station in the centre of the area. Also it may be necessary to acquire and pull down one of the houses on the Hoylake Road, where the new main road from the station abuts on the Hoylake Road.

(d.) Sewage, etc.

(e.) The responsibility for the execution of scheme not in area of Wirral R.D.C.

(f.) Information as to ancient monuments.

(g.) Information as to Government property.

STATEMENT OF COST AND GENERAL PARTICULARS.

A. The estimated cost of executing the scheme will include:

(a.) The cost of providing an 80 foot boulevard with open space from the station to the Hoylake Road, after deducting 36 ft. or 40 ft. in width, the cost of which will be borne by the owners (the owners will also provide the land free for the difference between 40 ft. or 36 ft. and 80 ft.). We estimate the cost of construction at £2,000 0 0

(b.) The cost of acquiring existing buildings to be demolished in order to carry through the proposed new roads 1,000 0 0

(c.) Cost of acquiring agricultural land to enlarge present public common 5,000 0 0

Estimated cost £8,000 0 0

Recovering from owners by reason of increase in value of land included in scheme around station and open spaces ($\frac{1}{2}$ increase value) 10,000 0 0

Estimated net gain to Wirral R.D.C. ... £2,000 0 0

B. Particulars of acreage, population, rateable value, each separate rate, loans, etc., of Rural District of Wirral.

C. No expenses to be incurred by other Local Authorities.

COVERING LETTER OF CLERK TO L.G.B.

Containing copy of resolution (page 8) and votes for and against.

LETTER.

Dear Sir,

At a meeting held on March 1st last, the following resolution was passed:

“Resolved that application be made to L.G.B. for authority to prepare a scheme for land bounded by red line and further illustrated on Map No. 2, and that the scheme be prepared in accordance with the statement and estimate submitted herewith.”

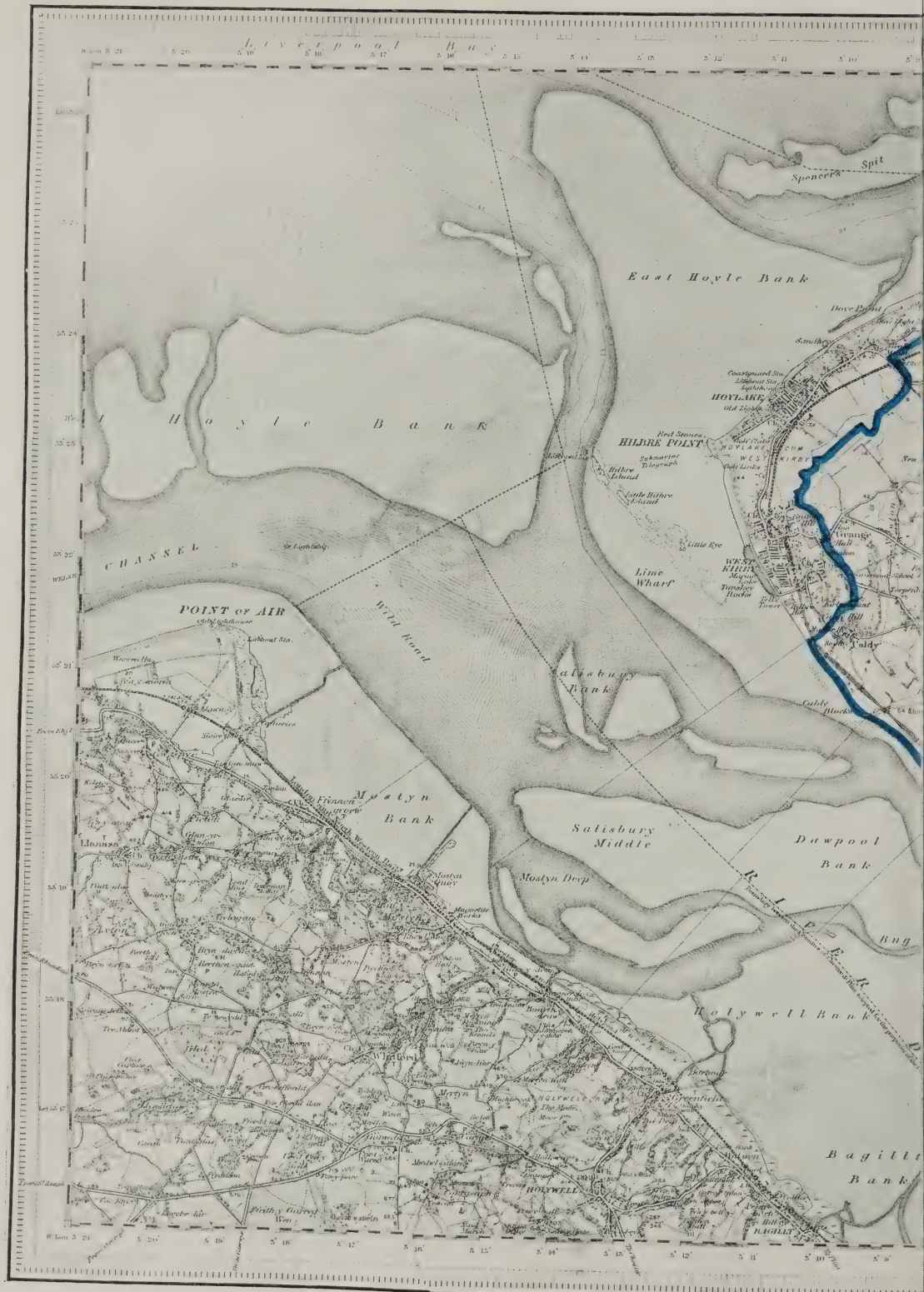
For.....

Against

Absent

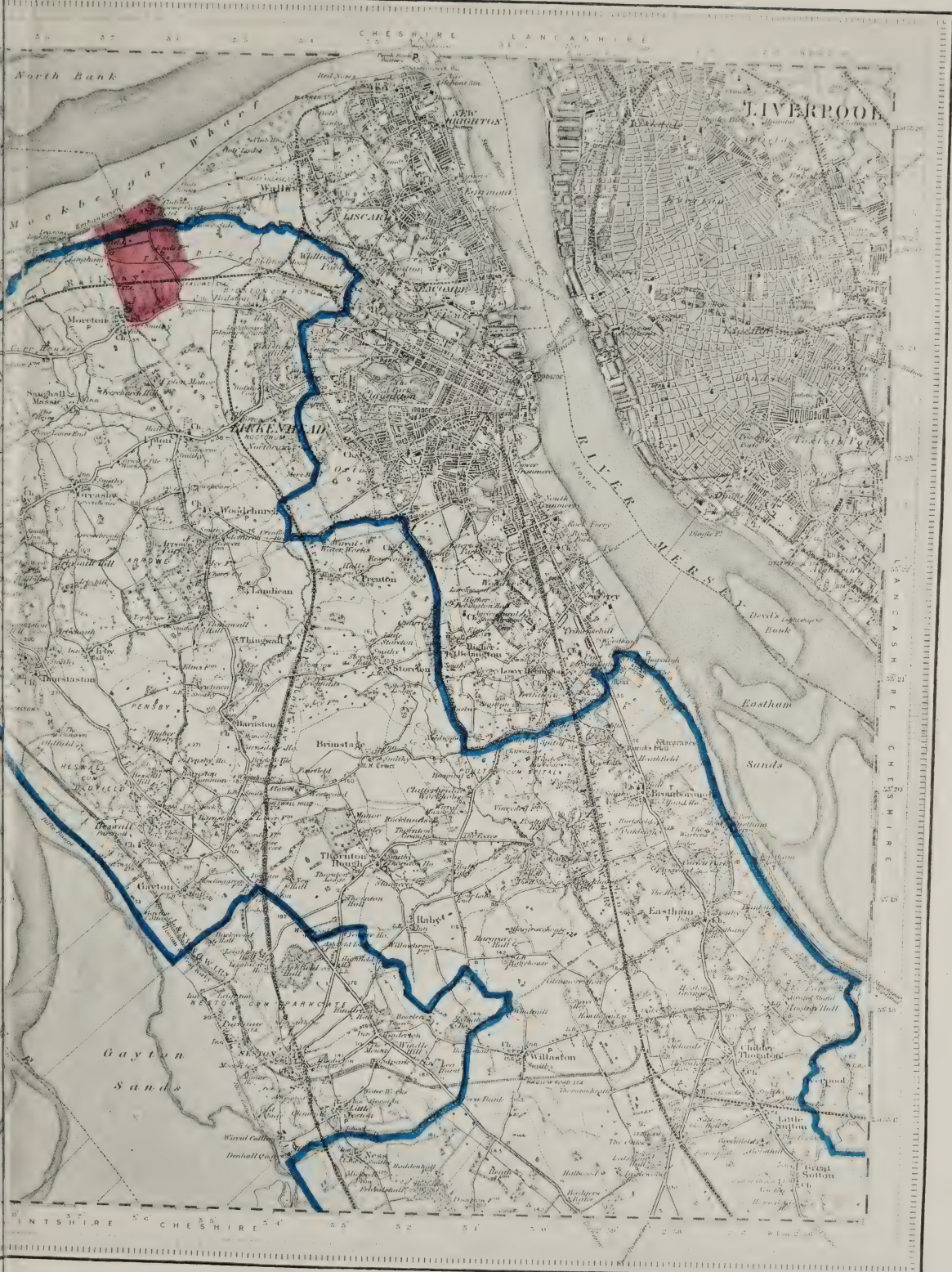
Did not vote.....

Yours faithfully,



Original scale one inch to the mile

Area of R.D.C. of Wirral edged with blue li.
Area of Moreton Town Planning Scheme col.



Art. V.

APPLICATION.

Clerk of L.A. to L.G.B.

LETTER.

Dear Sir,

With reference to my letter enclosing resolution..... I now make formal application on behalf of my Council for authority to prepare a Town Planning Scheme, and in so doing enclose herewith the necessary statutory declarations, exhibit, and maps.

Yours faithfully,

ENCLOSURES WITH APPLICATION.

- A. (1) Copy of form of notice (page 2).
- (2) Map 1.
- (3) Advertisement in newspapers (page 2).
- B. Map 2.
- C. Map 3.
- D. Copy of objections* in writing and not withdrawn.
Statement as Sheet 5.
Estimate as Sheet 5.

* It may be desirable, but is not necessary unless called for, to furnish a small map showing position of land to which objection is taken.

Art. XI.

Having made application as shown on page 13 with enclosures, the Local Authority forthwith notify same, giving date of resolution (March 1st, *see* page 8) in local newspapers.

WIRRAL RURAL DISTRICT COUNCIL.**Moreton Town Planning Scheme.****NOTICE.**

The above Council hereby give notice that they have made application to the Local Government Board for authority to prepare a Town Planning Scheme for the area in their district shown on the Map 1, already exhibited at the offices of the Council at..... on and after January 2nd last. A resolution to this effect was passed by the Council on March 1st last.

.....*Clerk to the Council.*

NOTE.—Two copies of these newspapers should be sent to the Local Government Board.



Original Scale $\frac{1}{2500}$

MAP No. IV.

At this stage attention is drawn to

THE ACT

Section 58 (2).

“A person shall not be entitled to obtain compensation under this section on account of any building erected on, or contract made or other thing done with respect to, land included in a scheme, after the time at which the application for authority to prepare a scheme was made, or after such other time as the Local Government Board may fix for the purpose.

Providing that this provision shall not apply as respects any work done before the date of the approval of the scheme for the purpose of finishing a building begun or of carrying out a contract entered into before the application was made.”

LOCAL GOVERNMENT BOARD INQUIRY.

It is probable that the Local Government Board will hold an inquiry at this stage, though this is not statutory. The following is the probable form of the notice which would be issued :—

LOCAL GOVERNMENT BOARD NOTICE OF LOCAL INQUIRY.

HOUSING, TOWN PLANNING, &c., ACT, 1909.

RURAL DISTRICT OF WIRRAL.

Whereas the Rural District Council of Wirral have applied to the Local Government Board under Part II. of the Housing, Town Planning, &c., Act, 1909, for authority to prepare a town planning scheme with reference to certain lands situate in the Rural District of Wirral and certain land in the Borough of Wallasey and in the Urban District of Hoylake, in regard to which notices of intention to make such application have been given in accordance with the Town Planning Procedure Regulations (England and Wales), 1910.

And whereas the Local Government Board have directed a local inquiry to be held into the subject-matter of such Application :

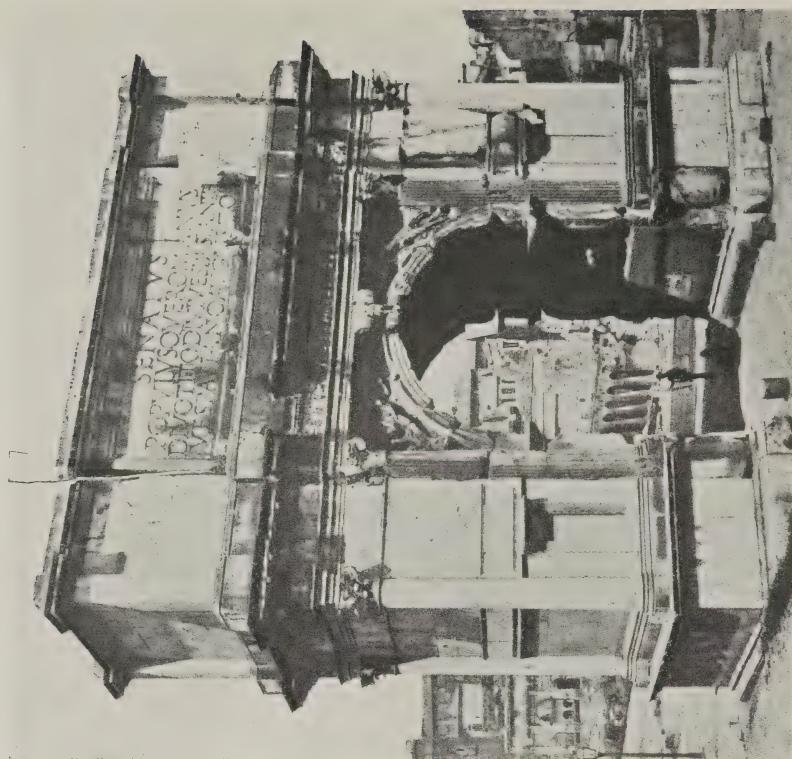
NOTICE is Hereby Given that.....
Esquire, who has been appointed to hold the Inquiry, will attend for that purpose at.....on.....the
.....19.....at eleven o'clock in the forenoon, and will then and there be prepared to receive the evidence of any person interested in the matter of the said inquiry.

WALTER T. JERRED,

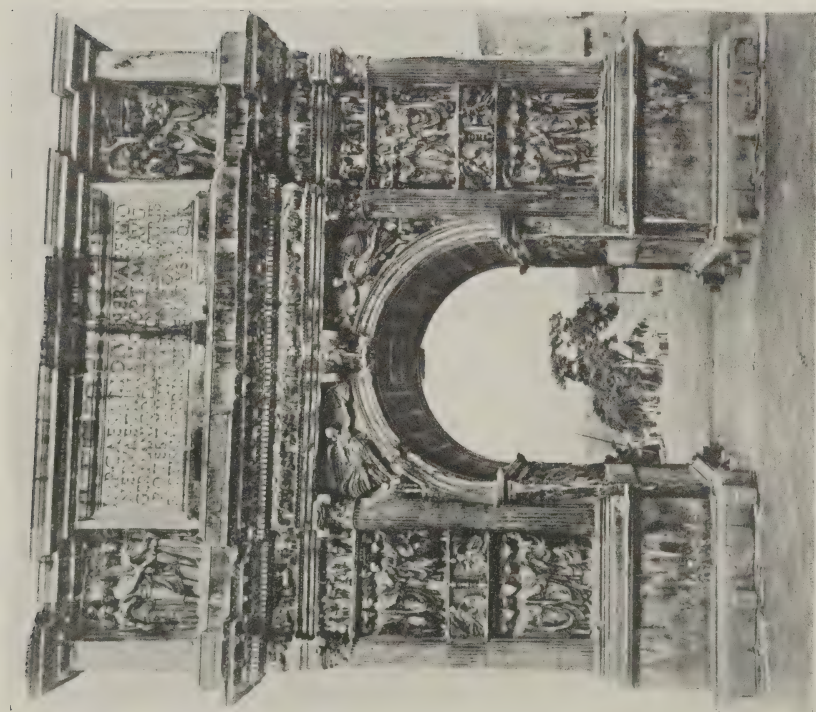
Local Government Board,

Assistant Secretary.

.....19.....



ARCH OF TITUS AT ROME



ARCH OF TRAJAN AT BENEVENTUM

THE DECORATION AND FURNISHING OF THE CITY

Introduction

It is only to those living outside the city, that it exists as an accretion of roofs, spires, and domes, a thing redolent of human interest, with an entity of its own, to be viewed externally and to be seen from afar off. To those living within its walls, it is a ramification of passages, intercepted at intervals with roofless halls.

As such, it needs decorating and furnishing, not only with objects purely utilitarian, but also, like the ornate apartment of the well-to-do, with *objets de vertu*—monumental arches, sculpture, columns, and the like, things of beauty, of historic interest and such as are inspiring to the crowd.

In the design of such objects a study of The Arch of Constantine, the Trajan Column, of Roman Candelabra, and of the sculpture of the Greeks proves to us the futility of accepting too readily new, untraditional, and untried forms. These world-worn objects retain still an historic worth—a charm vested in ages yet to come.

It is a disregard of the ancient lineage of these grand old forms which is responsible for so many of the modern failures in city decoration. Most of our so-called memorial groups are but towers of Babel struggling to reach the sky, merely floundering groups of sculpture clinging about the edges of cubes, octagons, and drums quite formless in their mass and characterless as a whole.

The composition of the figure group is limited to very simple proportions. However colossal, however complex, it must be easily separable into figure, pedestal and perhaps podium, but these alone. Where an effect of greater grandeur is required, the monument should take some well-recognised architectural form ; it should be, say, an arch, a fountain, or a column—a feature embellished with sculpture, and not a colossal jumble of sculpture unattached to any recognisable architectural form.

We must bear in mind that *all* objects in the street—utilitarian or otherwise—are things to be seen—parts of an organic whole, each having their respective part and place. Olympus, Athens, and Rome were each crowded with such objects, arranged for the most part in picturesque association.

This, it would appear, was a necessary result of the gradual accumulation which had taken place, of statuary, altars, and the like ;

but, judging from the interior of the great Roman Forums, the *Thermae*, and the *Basilicas*, a symmetrical arrangement of incidental sculpture was always desired. Greatness of effect is to be obtained in the city by standardising design, by the repetition of pedestals, of lamp standards, and of all those incidents which, like sentinels as we pass along the streets, help so wonderfully to give rhythm to the otherwise disconnected interests in a town.

Monumental Arches

The Monumental Arch, the finest of all national or civic monuments, is the creation of the Romans. It is true that there are evidences in Egypt of trabeated portals, isolated, and standing as monuments; it is also true that a simple form of triumphal arch was used by the Etruscans. But the "*Arc de Triomphe*" as we know it, and standing as it does to commemorate conquest, colonisation, and construction, is essentially Roman.

An arch at Rimini was erected in honour of an important restoration of the Flamian way by Augustus, and another at Susa, in Piedmont, by the same emperor, commemorates a similar act. Trajan erected a considerable number of arches, most of which have since been destroyed or removed; there remains, however, a fine one at Ancona, erected to the memory of this emperor, in honour of the restoration of the harbour, and another at Beneventum commemorating the repairing of the Appian Way. That erected by Hadrian at Athens, and another by the same emperor at Antinoë, in Egypt, commemorate improvements made in these cities, so that it would appear that the arch is essentially a monument commemorative of great engineering and architectural developments. Often, however, arches were erected to commemorate a conquest, or the acquisition of territory.

In the Mediæval Ages, the Arch used purely as a monument does not exist, its nearest approach being the portal to the city, and the keep, and in the early Renaissance days we get a resuscitation of these features borrowed from each other. But it is the Triumphal Arch used simply as a monument that we are at present considering, and not the portcullis or entrance gateway of the walled town.

The Arch so used was usually placed at the entrance to some architectural scheme, at the termination of an avenue, or on the crown of a hill. Festive arches, temporarily erected to commemorate the Royal progress through a city, or some such important function, were very common features during Renaissance periods.

The earliest of the Roman arches were regarded more as pedestals for statuary than as portals. At first they contained but one opening only, and were high rather than low in proportion; latterly, however, they

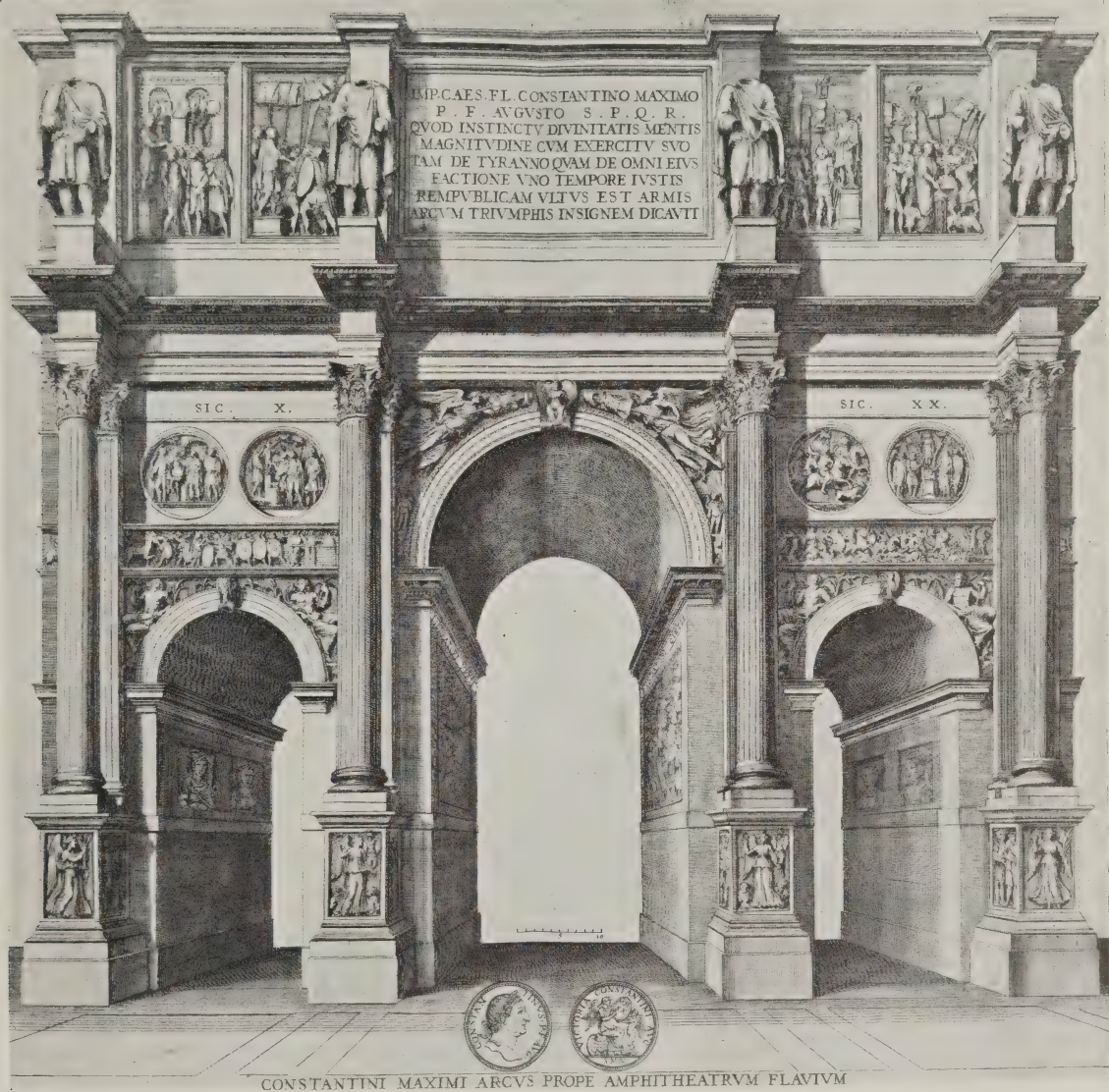


After an etching by Piranesi

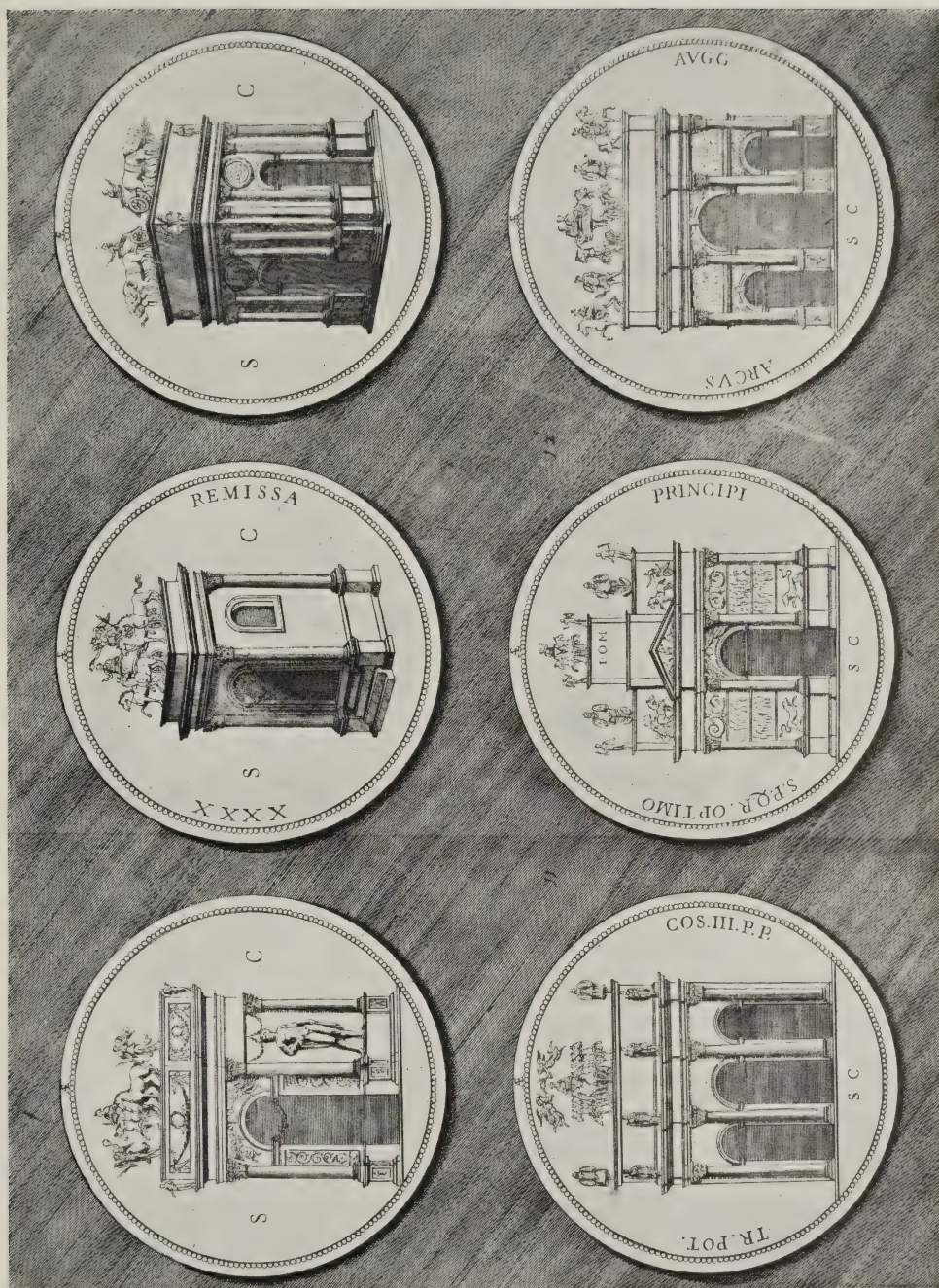
ARCH OF TRAJAN AT ANCONA



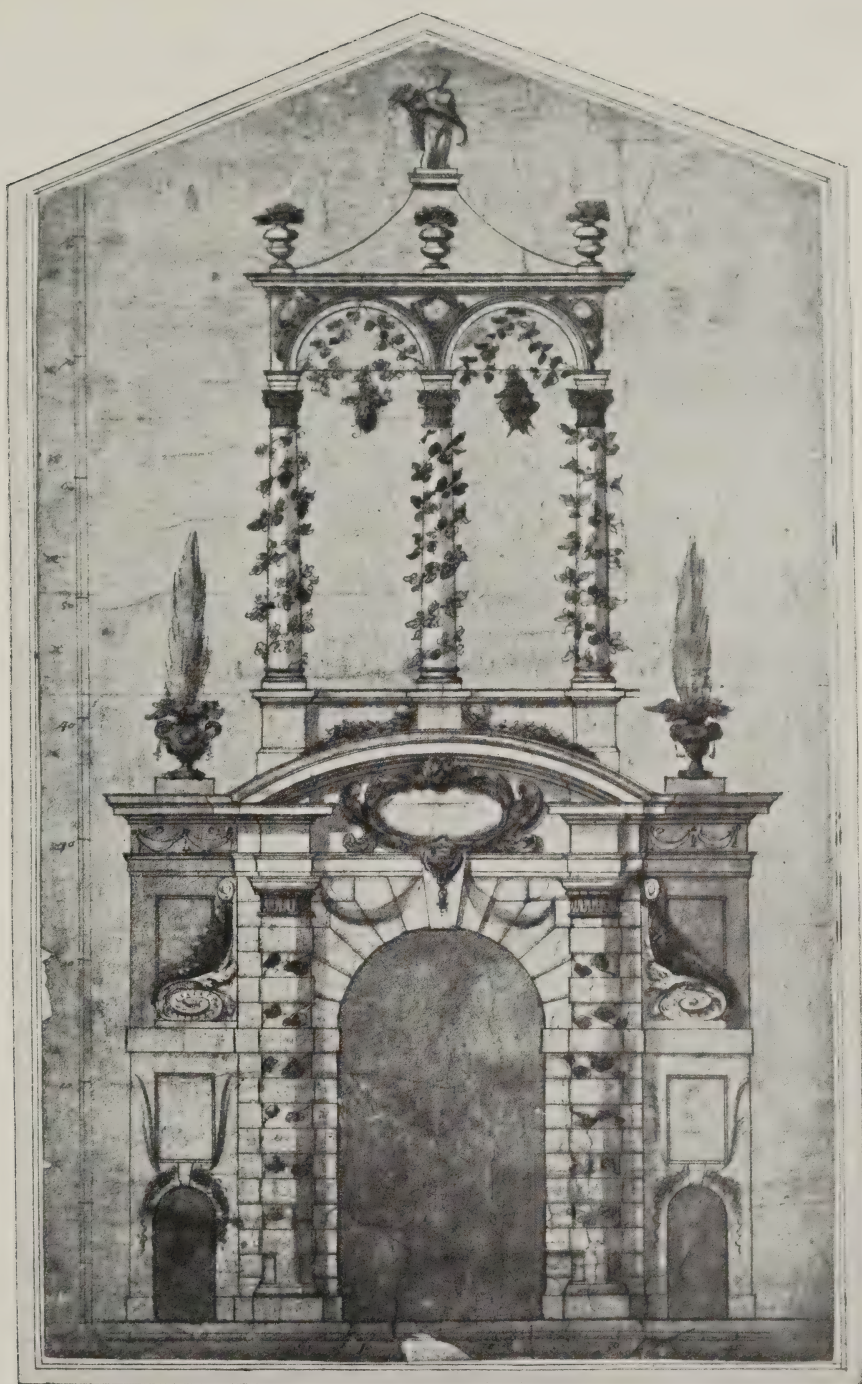
ARCH OF THESEUS AND HADRIAN, ATHENS



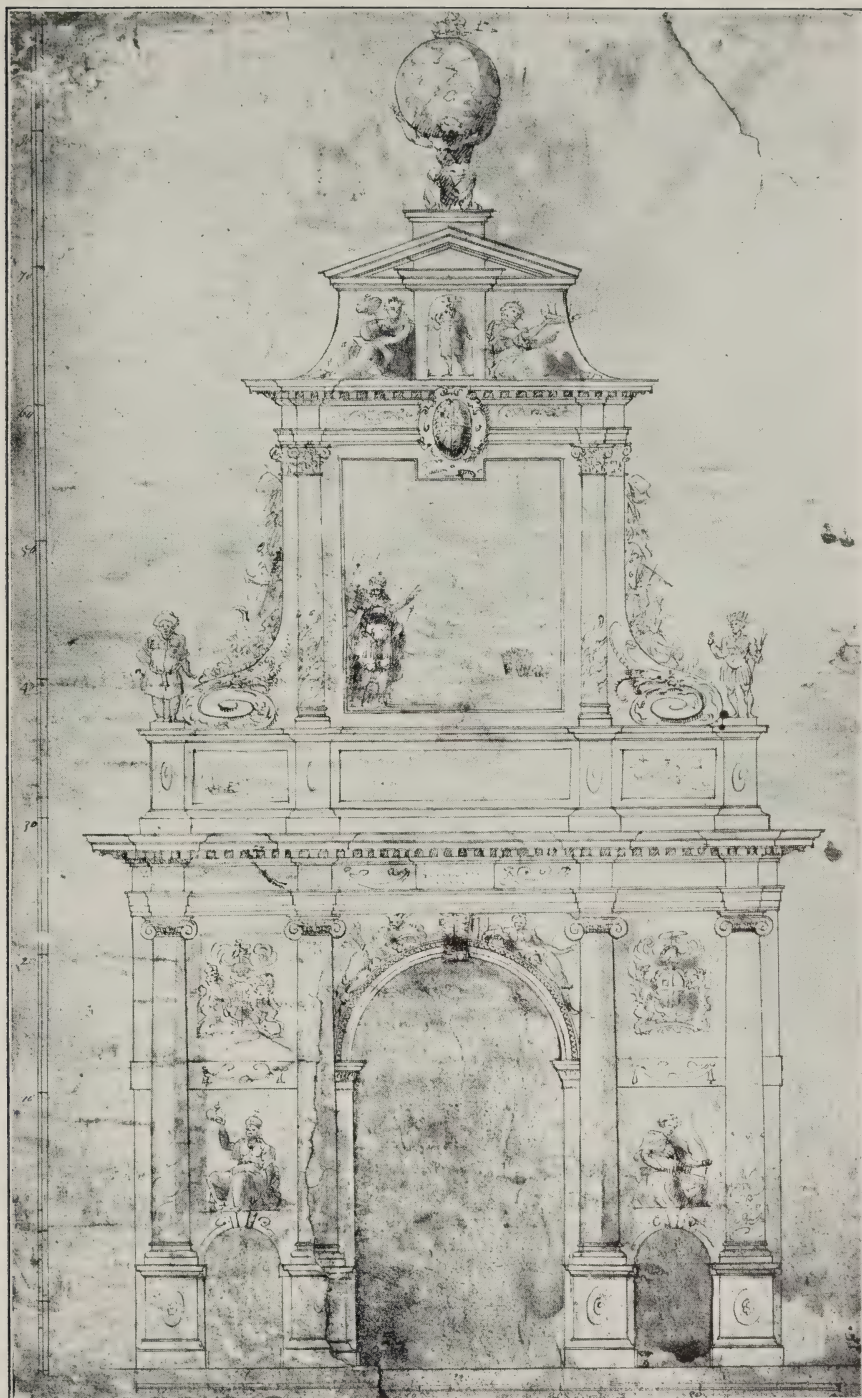
ARCH OF CONSTANTINE, ROME



ROMAN COINS, SHOWING ARCHES CROWNED WITH QUADRIGA AND SCULPTURE



TEMPORARY ARCH ERECTED FOR THE
ENTRY OF CHARLES II. INTO LONDON



TEMPORARY ARCH ERECTED FOR THE
ENTRY OF CHARLES II. INTO LONDON



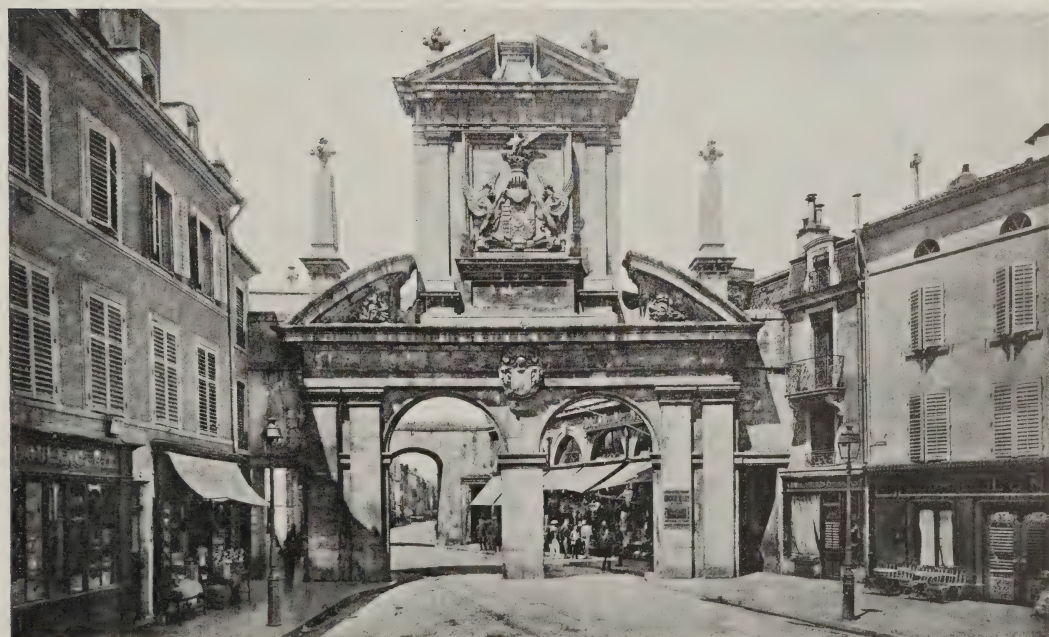
PARIS
Porte Saint-Martin



PARIS
Porte Saint-Denis



NANCY
Porte Désilles



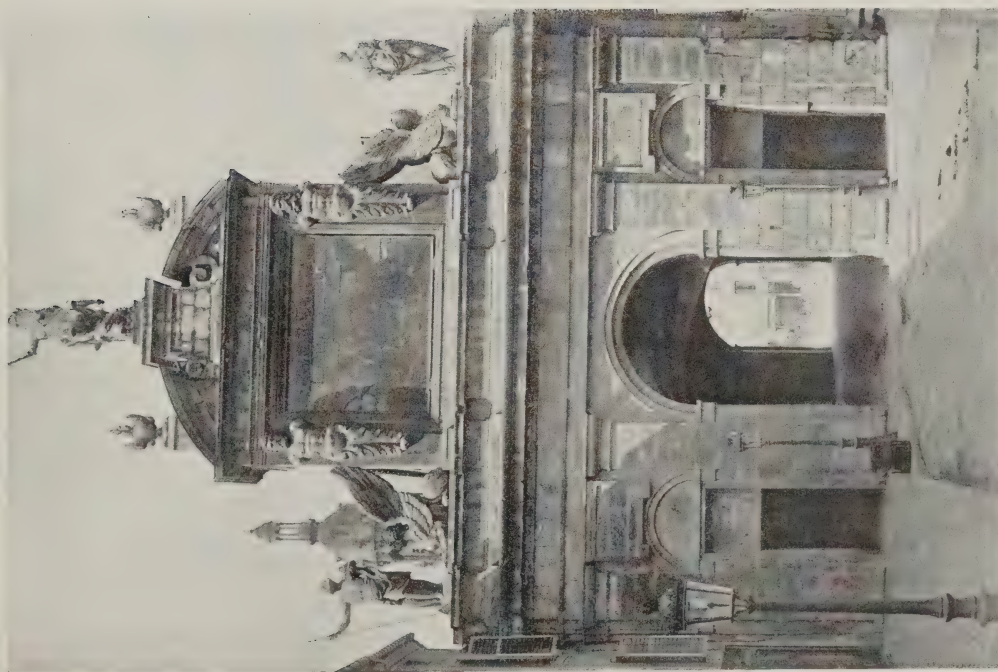
NANCY
Porte Saint-Nicolas



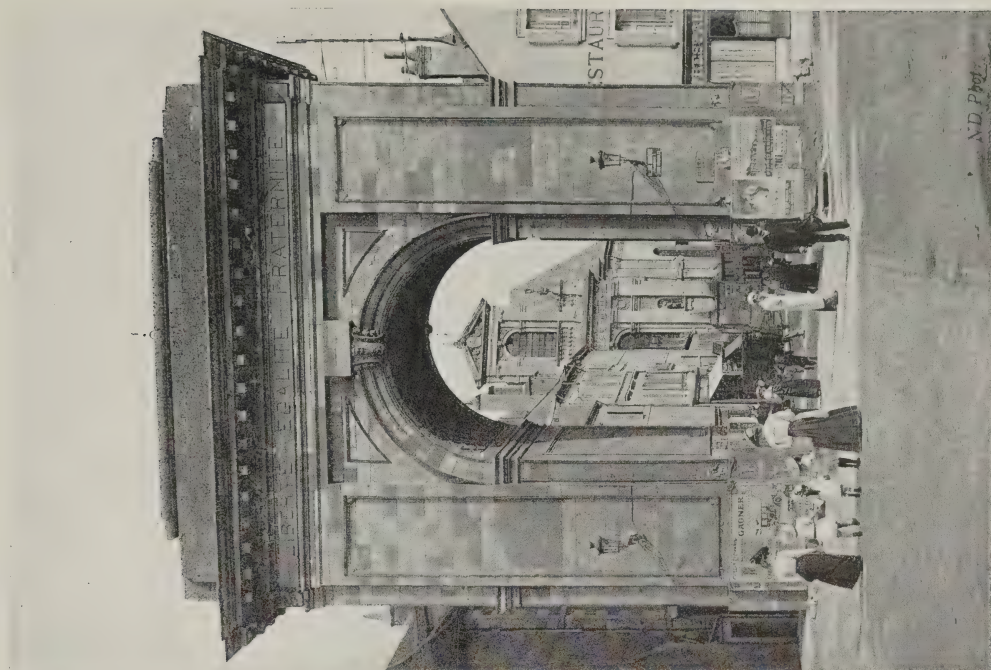
NANCY
Porte Stanislas



NANCY
Porte Sainte-Catherine



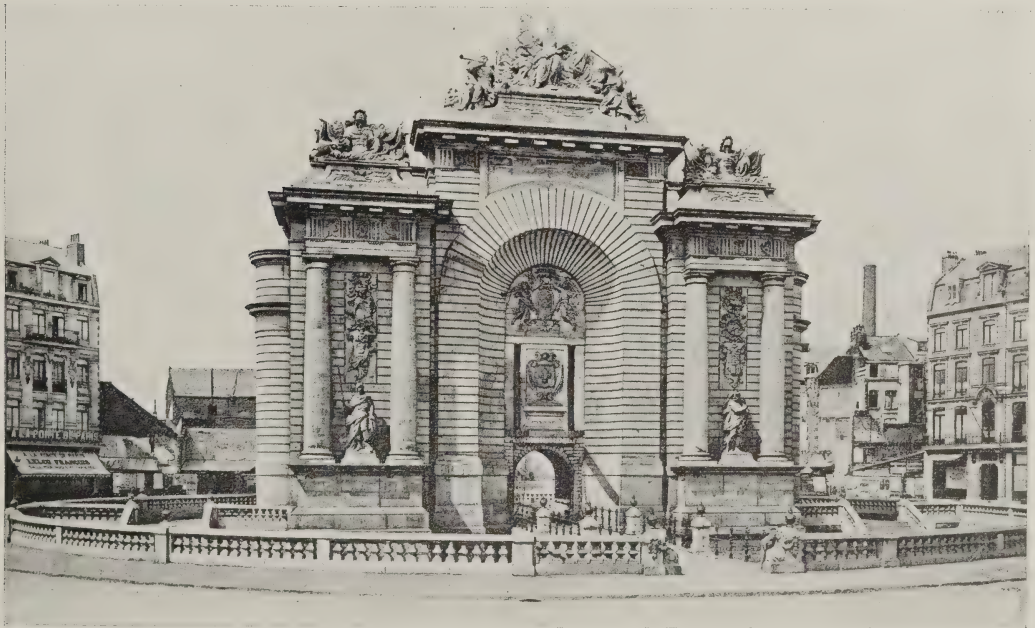
NANCY
Porte Saint-Georges



NEVERS
Porte de Paris



ROCHEFORT-SUR-MER
Gale of the Prefecture



LILLE
Porte de Paris



SAINT MARTIN
Porte des Campani



BORDEAU
Porte des Salinières



BEAUNE
Porte Saint-Nicolas



VERSAILLES
Porte Saint-Antoine



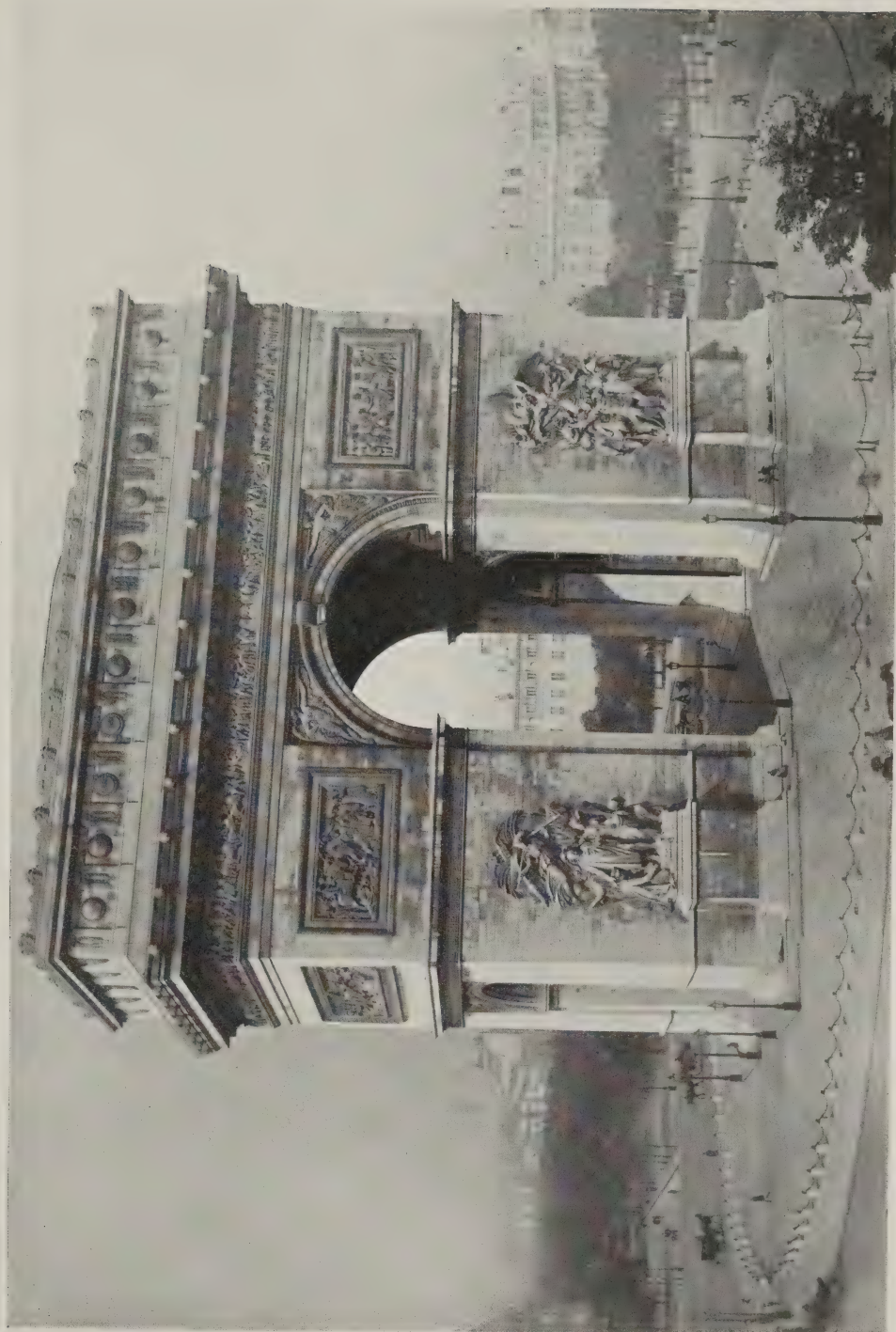
ROCHEFORT-SUR-MER

Gate to the Arsenal

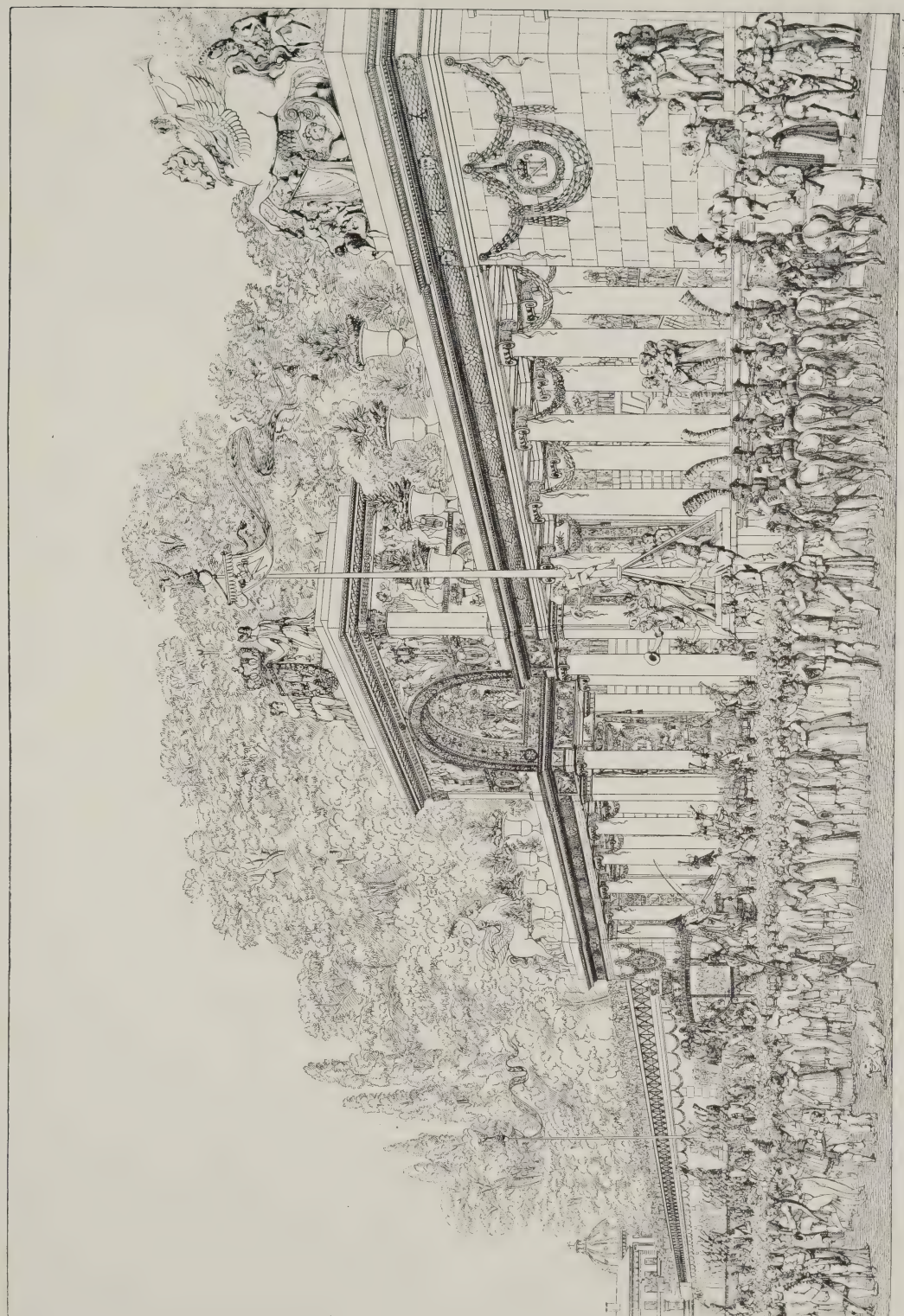


CHALONS-SUR-MARNE

Porte Sainte-Croix



ARC DE TRIOMPHE
PARIS



TEMPORARY ARCH, ERECTED AT THE ENTRANCE TO THE TUILERIES GARDENS,
ON THE OCCASION OF THE MARRIAGE OF NAPOLEON AND JOSEPHINE



THE BRANDENBURG GATE FROM THE PARISERPLATZ, BERLIN



ARCH IN THE PLACE DU CARROUSEL, PARIS



DECIMUS BURTON ARCH, CONSTITUTION HILL, LONDON



MARBLE ARCH, LONDON



WASHINGTON ARCH, NEW YORK



ENTRANCE ARCH TO BIRKENHEAD PARK

took the form of three arch interspacings, as that of Constantine and Septimius Severus.** They were invariably surmounted by quadriga, single equestrian figures, sentinels, eagles, and trophies of conquest and war, and, though these have long since perished or been removed, we have authentic illustrations showing that they were so embellished on the coins which were struck at the time. See plate 9.

The Monumental Arch, therefore, to be correct, should be surmounted by statuary, and not left vacant, as are so many arches at the present day.

For an exhaustive treatise on the Roman arch, we would refer the reader to the German work by Baumeister—"Architecture of Greece and Rome"—where a list of some fifty arches are enumerated erected mostly in Rome, North Africa, and France. Of these, The Arch of Constantine is perhaps the best known. It consists (see plate 8) of a large arch in the centre and smaller ones at either side. The figures used to crown the order in the frieze were taken from an earlier arch erected by Trajan. The Arch of Septimius Severus is very similar to that of Constantine. A very fine arch (with three openings) was erected at Orange, in France, to commemorate the construction of the harbour by Trajan. At Rheims there are the remains of an arch having three equal openings. By far the greater number of the arches, however, had one opening only, and of these that erected at Beneventum 114 A.D., in honour of Trajan, is perhaps the best. Practically the whole of the surface is decorated with sculptured bas-relief. It is a record of events—a history in stone—framed in between podium, columns, cornice, and frieze. As such, there is no doubt it surpasses all others of its kind in strength of expression and correctness of character, but, at the same time, the arch erected by Titus, to commemorate the Conquest of Judea, though restored and no doubt having lost most of its original sculpture, by its perfect proportion makes an equally strong appeal.

Arches were very often erected by the Romans at the entrance to their bridges. That at Chamis, in Provence, France, still remains in an excellent state of preservation, each pylon consists of a single arch with pilasters in ante at either end.*

According to Gwilt, the Roman Arch was proportioned within a set system of geometric forms. It is doubtful if this was actually so, but even allowing for cases which as exceptions preponderate over others which conform to the general rule, and allowing for systems which are applicable to one arch only, at the same time, it may be a coincidence but it is curious that the centre of the arch almost invariably comes half way between the base of the order and the top of the main cornice.

** See Frontispiece.

* See Illustration on page 21.

Of arches erected during the period of the Renaissance in France, the best known are perhaps those at Nancy. La Porte Saint George was erected during the reign of Louis XIV., and others during the reigns of Louis XV. and Louis XVI. The reign of Louis XVI. saw the creation of a type of arch set in a deep square reveal, as at Nevers, Rochefort sur Mer, Beaune, and Versailles, this simple form of arch is very suitable as the entrance gateway to a park. In Paris the best-known arch is that erected to commemorate the victories of Napoleon at the Place d'Etoile. An earlier one, known as the Arc du Carrousel, was erected by Napoleon at the head of the Tuilleries Gardens; in reality, a free copy of the Arch of Septimius Severus at Rome.

Of the many gateways in Paris which contain features borrowed from the Roman Arches may be mentioned the Porte Dauphine, the Porte Saint Martin, and the Porte Saint Denis; the latter, with its pyramidal buttresses, is perhaps the most interesting.

In America there are very few monuments which take the form of the Monumental Arch and are of a permanent character. That erected to Washington, however, in Washington Square, New York, from the designs of Mackim, is, however, perhaps the best known. It is an exceedingly beautiful arch, with the most refined detail.

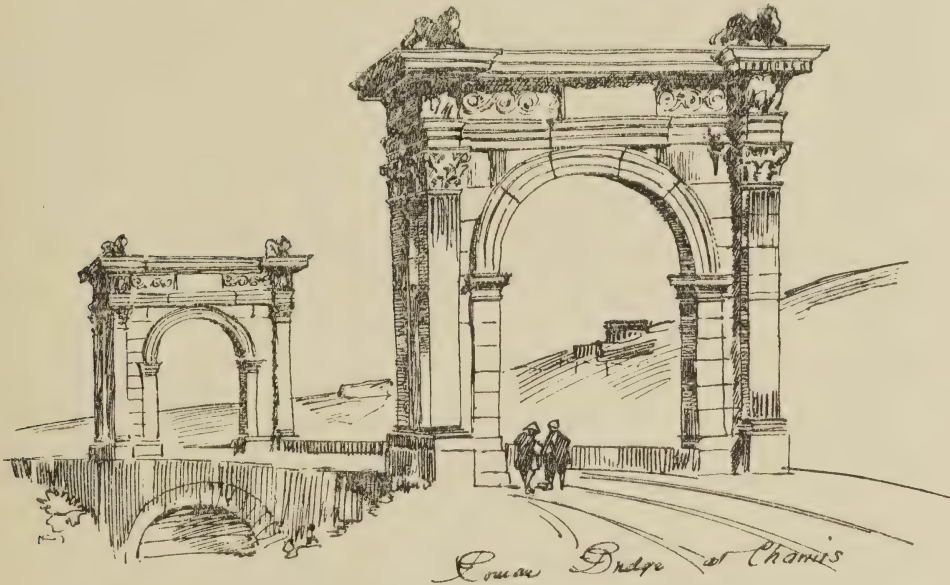
Though during the middle and early part of last century a considerable number of arches were erected in this country, including the famous arch into Birkenhead Park, the arch at the head of Constitution Hill (London), the Marble Arch, and many others, there is no doubt very few arches have been erected as permanent public monuments during recent years. This is largely due, no doubt, to the intrusion of the Gothic Revival, and the instability of the so-called English Renaissance which followed. At the same time, the great cost necessary to be incurred in the erection of a big Monumental Arch has had as much to do with keeping back the erection as any other thing.

The costliness of the permanent arch has, however, not prevented its use as a temporary decorative feature. Napoleon commissioned his architects, Percier and Fontaine, to erect an arch in Paris on the occasion of his marriage with Josephine, and this arch, with its columnated appendages erected in the Imperial style of the period, is one of the most beautiful of street decorations ever conceived. A great temporary arch was erected in New York on the triumphal entry of Dewey after the close of the Naval War with Spain. Arches were erected in London on the processional route of the Coronation of Edward VII., notably one by Canada, in Whitehall; a miserably poor design.

But this short article on Monumental Arches would be incomplete without some reference to the arches erected by Inigo Jones and Wren

in the City of London, all of which have meantime been taken down. We illustrate several of these by Inigo Jones. The best known by Wren, that of Temple Bar, since re-erected at the entrance to a private estate at Cheshunt, will, it is to be hoped, before long be re-erected somewhere in London as being a relic of too great historic interest to be relegated outside.

In view of the forthcoming Coronation, many temporary arches will, no doubt, be erected, but does not an occasion like the adoption of a Town Planning Scheme to an important area and its development, or even the extension of a city boundary, call for the erection of an arch? Certainly, one would like to see a revival of this finest of commemorative monuments, designed by architects possessed of scholarship and skill.



S. D. ADSHEAD.

NOTE.

The frontispiece to this number is reproduced from "Old Rome, the Triumph of Constantine in the year 312 A.D.," by Professors J. Bühlmann and A. von Wagner, Munich.

SOUTHPORT: SOME SUGGESTIONS FOR ITS FUTURE GROWTH.

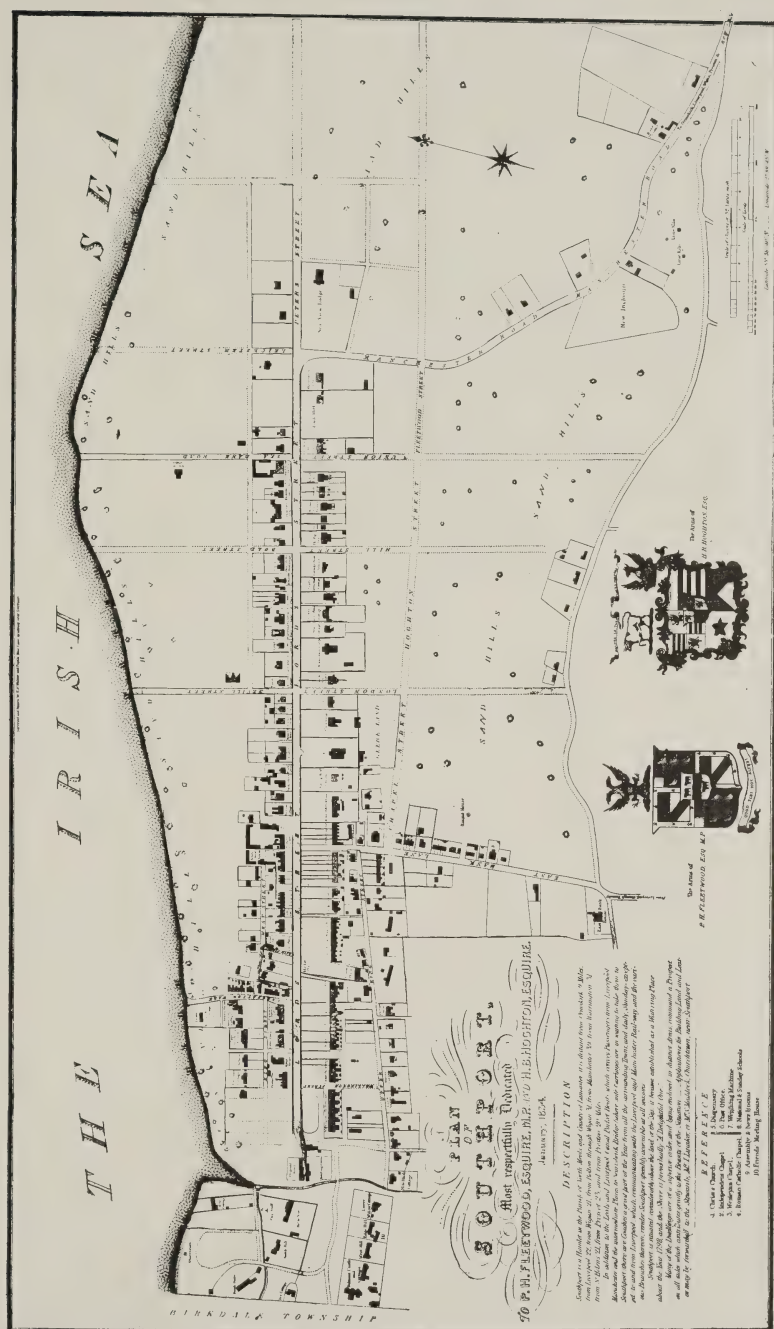
Editor's Historical Foreword.

Little more than a century ago the space now occupied by the town of Southport consisted of nothing more than sandhills, with here and there a fisherman's hut. It was in 1792 that the foundation of the modern town was unconsciously laid, when one William Sutton built an hotel for the convenience of visitors coming here to bathe during the summer months. The old village of Churchtown, now incorporated in the modern borough, had enjoyed for many years previously a reputation for good bathing. Sutton built his hotel south of the village, near a little haven or port, which then existed on the coast; hence the name, Southport.

The actual christening of the town took place during a celebration held in the hotel on the occasion of the Battle of the Nile in 1798. At the same time the little stream that flowed into the haven was named the Nile.

Around his house others sprang up, and before many years had passed the new town had come into being. Southport thus "began with sea bathing," as it has been said, and for many years this was the principal object for which visitors came to the town. The first visitors were distinctly aristocratic. In 1797 Bold Hesketh Fleetwood, Esq., the Lord of the Manor, on becoming Sheriff of Lancashire, made his headquarters at Meols Hall, at Churchtown (now part of Southport), instead of at his other house at Rossall, near Fleetwood. As a result the surrounding gentry built cottages in the neighbourhood for the purposes of sea bathing.

But it is as the outlet for the industrial population of Lancashire that Southport has grown to its present importance. With Blackpool, it has become the chief recreation town for the vast population which works in the closely built manufacturing towns of the interior. Without the natural beauties of the North Wales and other sea resorts, Southport has grown up as a result of "cloistro-phobia," or the natural human revulsion to being penned up in close, hurried, smoky, stuffy Lancashire towns, many of them lying in valleys and hollows. It was natural to look toward the coast for fresh air, and it has therefore been the aim of Southport to foster this desire and lay itself out to attract residents and visitors. As a town it therefore shows achievements in Town Planning and amenities far in excess of its inland neighbours, as in this



PLAN OF TOWN IN 1834

SOUTHPORT



LORD STREET: CENTRAL GROUP OF BUILDINGS



LORD STREET: SHOWING PRIVATE GARDENS
SOUTHPORT

case the rendering of streets bright, attractive, and tree-lined is all part of a municipal asset whose return is quickly realised. The ordinary mechanic is aware that his own town is hideous and never supposes it can be anything else, so he requires a contrast in his recreation town. And the same applies to his richer fellow citizen who decides to live in a different town from that in which he works.

The site of the original hotel can be seen on the map reproduced on Plate 24. To the north-east of this in a long valley of the sandhills, parallel with the coast stretched a series of narrow lagunes or pools, the water being held by a calcareous deposit under the sand. These extended from the site of the present Hesketh Park to the hotel near the small estuary. This long depression or valley was the origin of Southport's general scheme of design, *i.e.*, its long central straight artery, Lord Street, and also of the actual formation of Lord Street itself—its great width. This was not due to any original artistic or town planning conception, but to the natural desire to obtain a dry foundation for the houses by setting them back so as to avoid the damp hollow. The gardens to many of the houses have been municipalised and added to the street giving a width of over 300 feet, others still remain. Lord Street thus formed partly by an accident has been made perhaps the finest Boulevard in this country, and the practical example which it afforded has been carried out in many of the subsequent streets.

The natural growth of the town was on both sides of this artery. But on the seaward side another natural phenomenon was taking place, *i.e.*, the accretion of the seashore. This did not affect the town as might have been expected in the form of a continued expansion seawards, as there existed a definite boundary of foreshore beyond which there were foreshore rights which Southport did not possess. The Borough was incorporated in 1867, but not until 1883 did the Corporation acquire foreshore rights, and then with restrictions that no buildings should be erected from the Birkdale Boundary to Seabank Road. This restriction and the natural action of the sea has given Southport its most characteristic "recreation" feature—its Foreshore Parkway, Marine Lakes, Marine Drive, "Village Fair," &c., thus converting what might have been its detriment into its principal attractions.

One other feature of growth may be noted. A little more than 100 yards to the south-west of the "Nile" came the straight line of the boundary between the Hesketh estates and the Weld-Blundell estates. Development took place at first entirely on the Hesketh side of the line, which accounts for the abrupt end to Lord Street, and when building was begun on the other side of the line about 1850, forming the present Birkdale, it was of a more detached and irregular kind. This characteristic

has been largely preserved to the present day. The highly artificial boundary is, however, shortly to be removed by the amalgamation of the two areas under one borough. It will then be possible to articulate Lord Street with the complete plan of the town.

The present population of Southport is about 80,000, including Birkdale and Ainsdale. It is situated on the south side of the Ribble estuary, and faces the sea in a north-westerly direction; from the Promenade the mountains of Cumberland may sometimes be seen in the North, whilst nearer to, and further east, are the Wyresdale Hills of Lancashire, with Lytham and St. Annes in the foreground, on the opposite side of the estuary.

L. P. A.

Part I. The Town Planning of a Residential City.

General.

Aristotle is said to have defined a city as "a place where men live a common life for a noble end." This definition of a city, which we may accept for our purpose, it will be noted implies an end or aim. There can be no question that although the end is not a single one, there has been in the building of every city some object in view, some aim towards which those who have been responsible for its foundation and growth have consciously or unconsciously been aiming. A city is not an accident, though many accidental circumstances may have conspired in its growth, and each city, regarded with observing thought, tells its own tale.

It seems to follow that one would expect to find that each city has some character marks of its own, and though the city represents the aggregation of a vast number of individuals and the aggregation of a great number of habitations, it has become an entity of itself, and as a unit has the characteristics of individuality. If a city were always the product of some definite plan, we should certainly expect to find individuality in accordance with the aim behind the mind which created the plan, but, speaking in a general sense, in most cities the absence of any general plan is one of their most prominent characteristics. When, however, we come to speak of "town planning," it seems so obvious as to need no argument whatever that the planning must have some definite end and aim in view. The aim may be a modest one, or it may be as ambitious as that of Nero, who conceived the gigantic plan of renewing and rebuilding Rome from the very foundation.

The Neronian method of preparing a conflagration so as to make possible the building of a new city upon the ruins of the old is neither possible nor is it necessary, fortunately, in the case of Southport. What we need rather to consider is whether anything can be achieved by any scheme of



THE SEA FRONT

SOUTHPORT

town planning, what aim should be in view if such schemes are to be adopted, and, incidentally, by what means and methods such aims can be achieved. The first point is clearly, What should be the aim ? and to answer this question we are at once thrown back upon the question of what is, or, at any rate, what should be, the individuality by which our town should be marked and known. Is not the aim the one implied in the term "Garden City" ? It might be difficult to give a definition of that phrase which would be beyond criticism, but the general meaning is one of common acceptance, and I think I need not labour at a definition beyond saying that it implies that Southport is to be regarded as a beautiful, well planted, and finely laid-out residential city, known and characterised by the charm and amenities which it can offer to those who seek a residence or dwelling removed from the turmoil, stress, and discomforts of a manufacturing district. But the city which claims to be, as it were, a garden of itself, has aimed at a high mark. Bacon says, in his "Essay of Gardens": "God Almighty first planted a garden. And, indeed, it is the purest of human pleasures, it is the greatest refreshment to the spirits of man, without which buildings and palaces are but gross handiworks." One has only to realise what life means amid the prevailing conditions of a Lancashire manufacturing town to appreciate what attraction such a garden city can offer, and what a blessing such a place affords by way of respite and retreat from undesirable and often unhealthy surroundings. And though, of course, one does not by that imply that the conditions now prevailing in those manufacturing towns either should or will continue to prevail unaltered, or that something at any rate corresponding to the attraction of garden cities may not in the process of time be brought nearer to those cities, yet looking, as we are concerned to look at Southport to-day, we must, I think, realise that if, as we hope, it has any noble end (as implied in the Aristotelian definition), that noble end must surely be in serving this useful purpose to those industrial and commercial communities of Lancashire and the North who are able to enjoy such opportunities if and so far as they are placed within their reach. Surely Southport is fulfilling a useful function in the body politic and serving a noble end within its sphere if it wisely and fully meets this great need of the surrounding population. And this surely is what it claims to do and to be. But can it be said that so fully and completely does it fulfil its function that there is nothing further to aim at or nothing better to be done ? In other words, is Southport ideal now, and are further schemes of town planning mere works of supererogation ?

The Ideal for Greater Southport.

I purpose to indicate that though very large steps have been taken in the direction desired, though we may justly be city-proud, yet very considerable advance is still possible, and that, in my opinion, immediate and steady but unhurried progress is desirable.

My further purpose will be to indicate how such advance can and might properly be made, and I venture also to suggest that if by such advance this garden city can better fulfil its aim or sphere, the expenditure necessary for the purpose would be justified.

We are, from a legislative point of view, entering upon a new régime so far as this question is concerned—a new régime created by the Town Planning Act, 1909, which confers upon the Corporation as the administrative local authority not only powers but—it should be borne in mind—responsibilities which hitherto have not been theirs.

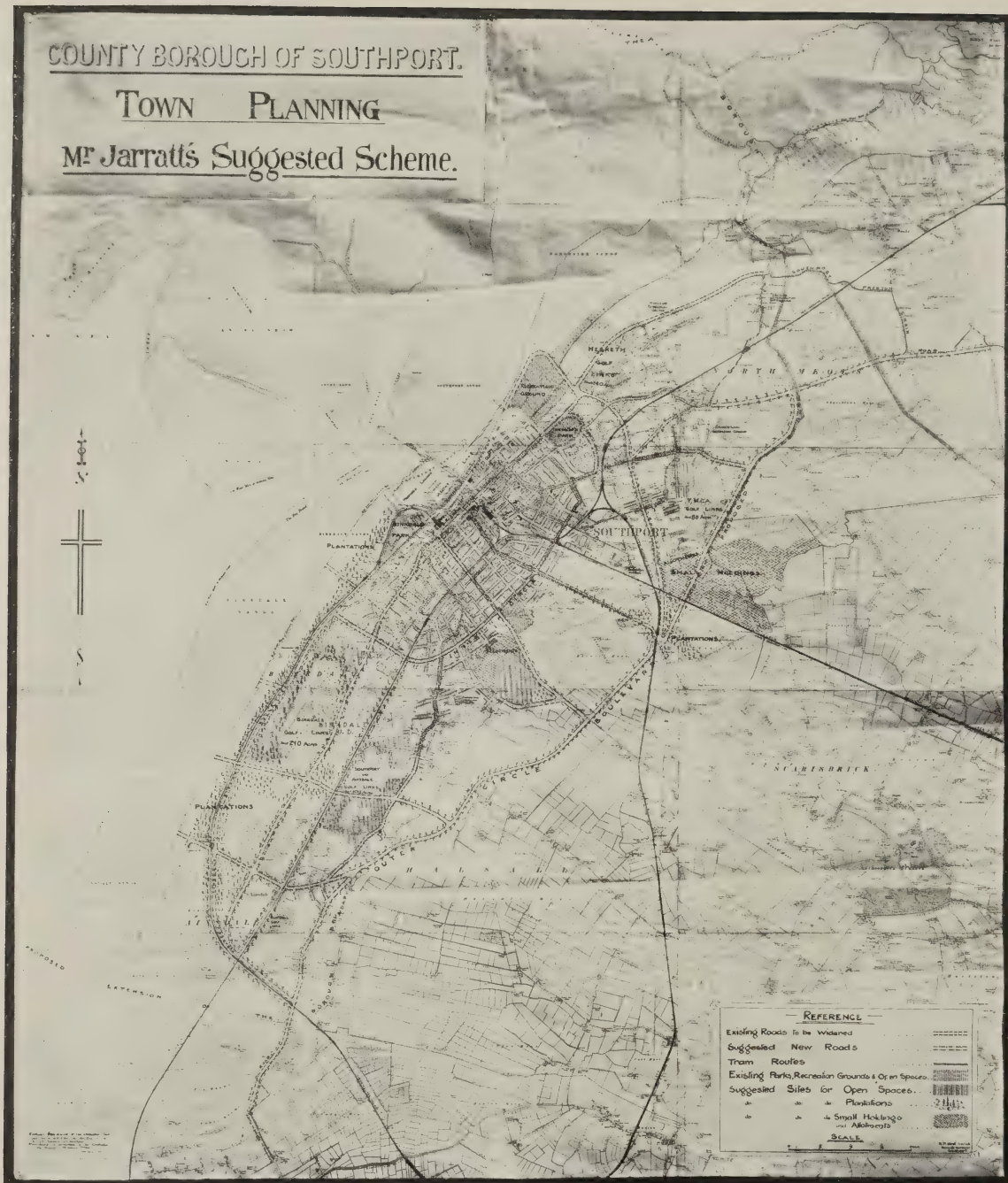
Southport starts under the Act with great initial advantages, which the past planning of the landowners and the past administration of the town by the authorities have already secured, but whilst the results of that joint enterprise so far can be justly regarded with pride, the new Act opens out larger possibilities under which much more may now be done. A careful study of what wise town planning and the liberal provision of attractive amenities can do and has done for some of the cities of the Continent has convinced me of the wisdom of looking well ahead and laying down broad and comprehensive lines for the planning of the Southport of the future as pre-eminently a garden city, attractive by its beauty, by its artistic symmetry and design, and by the amenities and conveniences which it offers. The manner in which Southport has avoided the defects of other towns and cities, with its wide streets, its well set back building lines, its detached or semi-detached houses, its gardens both in front of and behind practically all its dwellings, have already gained for it a reputation and an individuality of which not only its authority and its landowners, but also its citizens, may well be proud.

In spite of this, however, Southport is still capable of many improvements, but seeing that so far as the new Act is concerned the object of town planning schemes is confined to the future development of undeveloped land, it is the intention of the following suggestions to deal exclusively with the future of this Garden City rather than with its already developed area. Schemes of town planning under the recent Act would probably deal individually with a restricted area, but common prudence should, I think, dictate that as a preliminary to the consideration of such schemes, there should first of all be prepared a general survey or town plan, which should indicate in quite a general way in relation to existing

COUNTY BOROUGH OF SOUTHPORT.

TOWN PLANNING

Mr Jarratt's Suggested Scheme.



PROPOSED OUTER BOULEVARD, ETC.

SOUTHPORT

conditions the broad lines on which development should take place in the future, providing well ahead for the construction or improvement of all arterial lines of traffic and for proper intercommunication from the centre to the outskirts and intercommunication between various parts of the city. Of course, before any such plan is really adopted, it would be desirable that all available light should be thrown upon the problems to be settled by the plan, and for that purpose the interests of the land-owners and the interests of the public would need full and careful consideration. Regard must also be had to the lines of traffic which do or will pass through or in the neighbourhood of the town from or between other centres of population, and consideration needs also to be given not only to the provision of proper access between the centre of the town to the dwellings on the outskirts, but also to the provision of easy access from the various parts of the town into the rural country within easy reach. For, as Cowper wrote, "God made the country and man made the town." Roughly speaking, there are, in principle, so far as the main lines of a plan are concerned, two absolutely divergent ways of planning a town, viz., either on the rectangular or square system, or on the circular and radial system. There is, of course, a possibility of almost infinite variety and detail in each and of combination of both. The former, or as they call it, the gridiron plan, has been largely adopted in America. It has serious disadvantages which are now costing some American cities vast sums to minimise.

Part II. Suggestions for the Development of Southport.

Upon reference to the sketch plan of Southport, shown on plate 27, it will be observed where are the principal open spaces, Parks, &c., and also the position of Lord Street, which, with its boulevards, I think should be made the focus around which any scheme of town planning should centre. Carrying this idea out, I have also emphasized a few leading main roads radiating outwards from the centre to the outskirts of the town, these, I suggest, should be boulevardised as far as practicable. Further, I have shown on the plan, the idea of a circular inner boulevard, and at a farther distance an outer circular boulevard. These boulevards should, at any rate in their final form, be provided with what is called silent and comparatively dustless roadways, with, as far as possible, a continuous avenue of trees throughout their entire lengths, spacious footpaths, and, if possible, garden fences of either open railings or extremely low walls, so as to accentuate the width of the spaces between the building lines. The streets most easily adaptable to form the inner boulevard would appear to be Park Road or Leyland Road, Hartwood

Road, Ash Street, and Eastbourne Road, the semi-circle resting on Lord Street and its extensions as a base. The outer boulevard might be made out of Hesketh Road extended so as to cross Roe Lane into Wennington Road, and further extended as shown on the sketch plan near the boundary of the borough, crossing Scarisbrick New Road at the railway bridge and leading out through rural country into Ainsdale and on to Seaside. So as to minimise expense and to avoid unnecessary severance of lands the line of this road follows to some extent the sites of existing roads, and would probably render unnecessary other existing roads of very irregular direction. These circular boulevardised roads would be likely to be largely used by residents, motorists, cyclists, and as circular drives, and would, in my opinion, add enormously to the attractiveness of the district, especially if further open spaces and planted woodlands, as well as allotments, small holdings, and school and other similar buildings were, as far as possible, placed either on these roads or on the radial streets leading across them.

New Road to Crossens

I have also indicated on the plan the possible construction of a main road leading from Hesketh Road along the site of what was formerly known as Shore Road, now known as Fleetwood Road, crossing Marshside Road and following Dock Lane to the Plough Inn at Crossens. This road would considerably shorten the distance to Crossens and would be practically straight from Lord Street to Crossens, with the exception of one sharp bend only at Hesketh Road. The road would, in addition to shortening the distance, have the advantage, particularly to motor traffic, of avoiding the ugly corners (1) at the corner of Cambridge Road and Park Crescent; (2) at the corner of Cambridge Road and Marshside Road; and (3) at the Botanic Gardens, near the Old Pool, Churchtown; and (4) it would also avoid the railway bridge at Crossens Station. The construction of this road might, in the first place, be inexpensively made, and ultimately improved according to the nature and demands of the traffic. The road would be comparatively inexpensive, as it follows throughout the site of existing roads, which, by arrangement with the owner of the Hesketh Estate, are to be permanently widened in the future, though my plan indicates for the purpose of getting a better road how the exact lines of the present road should be departed from so as to curve off the corners as might probably be arranged with the landowners.

A "Short Cut" to Preston

I have also shown on the plan the line of the road which might be made to join the main road to Preston near Jonathan's Long Ditch outside Tarleton Parish. This new road would involve comparatively

little severance, and would materially shorten as well as straighten the road to Preston. Another matter is the making public of the two or three short lengths of now private roads (marked on the sketch plan) which at present intervene in what would otherwise be two very pretty circular cycle rides or walks in the vicinity of Southport. The rural country on this side of Southport has a charm and beauty which would be thought a great deal of if English people found it in Holland or Belgium, and anything which tended to make it more accessible and better known and utilised would be adding to the attractiveness of the district.

“Birkdale-Ainsdale Boulevard”

On the other side of the town I have indicated how I suggest it would be desirable to provide for a green belt on both sides of the existing Cheshire Lines Railway, by the plantation of suitable trees, a road being constructed in this green belt between Birkdale and the Seaside road at Ainsdale. I do not suggest that this road should take in any sense the form of a Promenade, as that name is applied to the Southport Promenade, but that the road should at present partake of the character of a rural road—see the road, for instance, leading from Freshfield Station to the coast. This Freshfield shore road, leading as it does amongst the sandhills and skirted by the plantations which some years ago were planted by Mr. Weld-Blundell, forms to my mind a striking object-lesson of the latent possibilities of our district by the adoption of some such planting as this. To those who have not already seen it, it would be an eye-opener. The construction of the suggested road alongside the Cheshire Lines Railway, with its accompanying belt of trees on either side, is, of course, one largely for the consideration of the landowners as well as of the local authorities, but the line suggested would possibly involve the minimum of severance, and would afford considerable facilities in the development of the adjoining lands and add to their value. Probably for the development of the land another narrower and subsidiary road with its belt of trees would be constructed by the landowner on the opposite side of the railway, and if, as seems to me desirable, the houses which will ultimately be built on these roads faced towards the railway instead of backing on to it, this plan would ultimately provide a magnificent avenue or boulevard of considerable width, with the railway in the centre, which probably would ultimately be electrified, and might be made to serve the purpose of a suburban railway or tramway.

Improved Approach from Liverpool

This scheme might be advantageously extended from Seaside along the Cheshire Lines Railway to join the Liverpool road at Woodvale

Station. By this means the road traffic from Liverpool, Formby, and Freshfield into Southport could avoid passing through the tortuous and sometimes crowded streets of Birkdale and the approaches into Southport. It would also avoid the level crossing near Birkdale Station over the Lancashire and Yorkshire Railway, which line might be bridged where the two railways intersect. The Cheshire Lines Extension Railway Company itself might initiate a service of motor trains serving Seaside Station, the Ainsdale Golf Links, and Woodside Station (for the various parts of Ainsdale), and Birkdale Palace Station, and another near the Birkdale Golf Links (for Birkdale), together with any intermediate stages which might ultimately be found convenient, thus affording excellent facilities for both those townships. It would then be unnecessary for the Cheshire Lines trains to stop at these stations except for through passengers, and the railway could thus in a modified form serve the purpose of an electric tramway running down the centre of the proposed new boulevard. This grand boulevard or avenue, with the railway in the middle (from which by electrification the nuisance from smoke would probably in future be eliminated), would form a most imposing approach to Southport and Birkdale, both by railway and by road, from the south. I have also indicated on the plan a number of points at which access to the shore should be safeguarded. These have in Southport been to some extent already provided for, but, I think, they should be marked on any town plan. The acquisition of open spaces for the developing parts of the borough is one which can only be dealt with on a plan carefully brought up to date and after knowing something more of the landowners' development proposals, but I have, by way of suggestion, indicated some lands which might be earmarked for acquisition as recreation ground, open spaces, plantation, and the like.

"No Better Investment"

None of these ideas will, of course, be adopted until after careful consideration, and then possibly only gradually, but though in the whole they would involve substantial expenditure, it must always be borne in mind that the life of a town is not circumscribed like that of an individual, but justifies one in looking a long way ahead. I incline to the view that Southport could make no better investment than in the expenditure involved in well considered and designed schemes of such a character as to secure and promote the development of the district along the best possible lines.

Lord Street: Improvements Required at each End

Reverting for a moment to Lord Street, which, as will be agreed, makes a magnificent centre or focus for such a scheme, there are clearly

latent possibilities which might make the street, beautiful as it is, still more impressive. The suggested improvements opposite Christ Church and opposite Crown House, and the remodelling of St. George's Square Gardens, and the boulevardising of the gardens between Eastbank Street and Duke Street, are, of course, obvious examples of such possibilities which should never be lost sight of. But think for a moment of the two ends of Lord Street. At the one end, where Lord Street receives the traffic of Manchester Road and Leicester Street, where Albert Road is strangled by that hideous wall forbidding a view of "The Woodlands"—and at the other end, where Lord Street breaks into Lord Street West, where it is intersected by Duke Street, improvements are surely necessary—and I suggest that one of the most effective ways would be by the creation of a fine and ample circus or place at each of these two points. The improvement at the Albert Road end would, of course, be coupled with the removal of the obstruction referred to, and the circus at the Birkdale end would be coupled with the widening of Lord Street West from the Congregational Church right through to the junction of Aughton Road with Lulworth Road. The improvements are necessary, but if they were done in the generous scale (which the treatment of Lord Street deserves), the scheme might add considerably to its dignity and impressiveness. These two circuses might form fitting sites for an important central statuary dominating the boulevard, and I venture to ask whether it would not be possible to deal with the scheme as a memorial of the late reign, placing a suitable statue, either allegoric of Peace or of King Edward the Peacemaker, in the circus at the south end, and remove Victoria's statue to the other in "Albert Place," from a position where she is much hidden and certainly doesn't dominate. If, too, by this means the access to and communication with Birkdale, instead of being strangled and dangerous, were laid on broader and freer lines, with the wings of Peace o'ershadowing, it would also aptly commemorate the termination of long years of estrangement and separation.

The Promenade and the Pleasure Fair

With regard to the Promenade and Marine Gardens, a suggested improvement has recently been submitted to the Local Government Board by the Corporation, which is probably only an instalment of a larger scheme for better utilising and improving the important asset which the town has in its frontage. The Fairground, which, if necessary, is not beautiful, might be entirely remodelled—for instance, say, upon the lines of a White City, which might be to some extent screened and relieved by suitable gardens and shrubs. The Fairground might be removed from its present site to a suitable position on what is generally known as

“The Lagoon,” within the Marine Drive—the remainder of the Lagoon being suitably laid out as a playing-ground for children and visitors. By this means, the Fairground, with the visitors and children, would be taken more on the sea front, whilst there would be less obstruction of view and less inconvenience and noise to residents in the locality, and vacating the present site of the Fairground would permit of a most effective extension of the Marine Gardens. With respect to open spaces, what we have just been describing would form a magnificent central playground for the visitors. Then on one side the Birkdale Park, with the Corporation’s Recreation Ground adjoining, forms a splendid area devoted to recreative purposes available for cricket, tennis, hockey, football, croquet, and the like on the south front of the town, whilst on the north front there are the 58 acres belonging to the Corporation at the north end of the Promenade, abutting upon Park Road and on the seaward side of Albert Road, which might be laid out like the Birkdale Park, as playing fields and for similar purposes of recreation.

People’s Park for the Working Class District

This adequate and generous provision of such accommodation at the front of the district, linked together by the Promenade with its lake and gardens, supplies many varied needs, but requires to be supplemented by some corresponding provision at the back of the town. Both in view of the expensiveness of land in the centre of built-up districts, and in view also of the desirability of recreation grounds being in as open country as possible, it is desirable that provision should be made by the acquisition of sufficient land for recreative purposes on the back fringe of the town, and it is fortunate that the Town Planning Act now confers upon the Corporation power to ensure the provision of open spaces. In making that provision, regard should be had to the desirability of acquiring land not only sufficient for playing fields, but I suggest also for the acquisition of sufficient to form a large people’s park—such as is almost universally provided on the Continent in cities and towns of any pretension. Such are the Volks Garten at Vienna, the Bois de Boulogne at Paris, the Englischer Garten at Munich, the Tiergarten at Berlin, the Grosse Garten at Dresden, and the Bosch at the Hague, namely, a large woodland garden or forest intersected by drives and walks, and interspersed with spinnies and glades, typical, as far as possible, of rural country, although within or close to the city’s gates. For this purpose, of course, a considerable acreage would have to be acquired, but it should be quite possible, for instance, somewhere in the neighbourhood of Kew Gardens Station, to acquire, at a reasonable rate, some of the low-lying land in that locality, and similarly also at Birkdale, which, after being suitably

planted, would be quite suitable for such a purpose, whilst at the same time, the laying out of such an area would give an increased value to the adjoining lands.

The Preservation of the Sandhills

The Town Planning Act contains special provision for the preservation of objects of beauty or of local interest, and in this connection, although Southport is not wealthy in such objects, it seems quite time that some definite plans were formulated for the preservation of at least some of the sandhills, which otherwise the builders are levelling entirely out of existence. Fortunately, the local Golf Links are likely to preserve some of them, but as the use of such links is, of course, to some extent restricted, and, moreover, the permanence of such links is not guaranteed, public ownership of some of the sandhills seems desirable. Especially is this desirable to ensure for the future close to the town pine plantations, which add so much not only to the attractiveness but to the reputation for healthiness of those places where they are found. As the Corporation have lately bought 10,000 pines, and planted over 7,000 of them, and are looking out where else to plant, Southport may yet be a city with its forest of pines. Another thing which in many towns ministers greatly to the healthiness and happiness of the people is the provision of sufficient allotment gardens, supplying the allotment holders and their families not only with garden produce for the houses, but, at the same time, with recreation as wholesome, if not as expensive, as some other recreations.

Co-operation with the Landowners

In regard to these and other matters, it will be understood how desirable it is that the authority and the local landowners should act in co-operation, and it is contemplated that not only will such co-operation be achieved, but that both parties in it will find that such planning and the administration of the Act is to their mutual interest. Consideration will have to be given to the almost innumerable details which arise on the construction, line, and direction of streets, regard being had not only to the convenience of the public with respect to convenient intercommunication between different parts of the town, but also to the convenience of the frontagers on each street. Not only the few, but why should not all the streets, be refreshed with the shade of trees? Purely residential streets, which can scarcely conceivably become arterial thoroughfares, might partake more of the nature of dignified carriage roads, with avenue of trees, grass verge on either side, and so-called noiseless surfaces, such details as lamp-posts, standard, seats, &c., not being overlooked, but without expensiveness made to harmonise with the general scheme, the

streets by preference being gently curved, except where direct lines or long vistas require that they should be straight. The intersection of long streets, or of important streets, should be marked by fitting squares or places ; corner plots, which often are too narrow for building purposes, being planted and transposed into street gardens, and suitable shelters, harmonising with the surroundings, might be placed in suitable positions where occasion requires.

A Dignified and Impressive Civic Centre

The question of architecture, a by no means unimportant question, needing more attention than it receives, is not a matter which under the new legislation is controlled, but in regard to architecture one possibility is within reach of the city, viz., the creation of a fitting civic centre. This should be dignified, impressive, whilst at the same time in harmony with the characteristics of the town itself, and, of course, not out of correspondence with the needs and resources of the public. But every modern community of, say, over fifty thousand inhabitants needs for its various services town and public halls, offices, sessions, courts, schools or colleges, libraries, art galleries, and the like, which, suitably designed, placed, and suitably arranged in relation to each other, can and should form such a civic centre worthy of the community. Although some of these buildings may possibly be provided at less cost at some distance from such centre, care should be taken that such a consideration is not attained at the cost of public convenience, or by the sacrifice of a befitting dignity and impressiveness in the civic centre, and which may be reflected in a loss of civic pride.

J. E. JARRATT.

THE POSSIBILITY OF DEVELOPMENT IN THE TRANSMISSION OF ELECTRICAL ENERGY AND ITS EFFECT ON TOWNS

The centralising of the supply of power was one of the first developments which was suggested when electricity began to be used on a comparatively large scale in the eighties. In some lectures and papers written at that date, it was proposed that cottage industries might be established and the factory system considerably modified. These prognostications have not been fulfilled, for reasons which now appear obvious, and it is unlikely that any developments in the electrical transmission of power in England will produce any recrudescence of industrial conditions which are now recognised in many cases to be unhealthy, and which in most cases are uneconomical.

At that time the large schemes which are now in operation were hardly considered to be possible. The transmission of electric power at the Frankfort Exhibition in 1890, over a distance of 110 miles from the Falls at Lauffen, on the River Neckar, was the first practical experiment which showed to what lengths the economical distribution of power by electric means could be carried ; but after that experiment it was many years before distribution on a large scale was carried out in practice. The most obvious case for long distance transmission occurs with a water-power plant when the source of the power is fixed by Nature and where the towns and factories which are to make use of the power are already in existence. Under these circumstances it is not remarkable that long distance transmission had grown most rapidly in countries where the supply of coal is small, but in which water power is plentiful. The outstanding examples of electrical transmission schemes are to be found in America, particularly in association with the Niagara Falls, though the longest distance transmissions are in operation on the Pacific slope of the United States, where coal is difficult to get, but where there is a considerable amount of water power. In connection with the supply of power to San Francisco there is now in operation a total length of line of over 1,000 miles, the longest distance between a transmitting and receiving station being 250 miles. The engineering problem as regards transmission of power over these distances may be regarded as solved, though there are, of course, many details which may yet be improved, which will lead to a better and more reliable service. The possibility of such systems in any country is very largely an economic one, though there are other factors which require consideration.

It may be questioned whether there is the same "*raison d'être*" for long-distance transmission in England as there is in countries where the natural supply of power is confined to a particular place as it is in a water-power station. The early suggestions that were made in this country deal with the possibility of establishing great distributing centres at the coal pits, either at the surface or underground, but there are other sources of power which have been largely overlooked. Mr. Thwaite, an English engineer (who unfortunately reaped a very small benefit from his suggestion), was the first to propose that the blast-furnace gases which are obtained from steel furnaces might be employed for producing electrical energy. (It may be interesting to note that one of the large Power Companies in the North of England is now proposing to use blast-furnace gas, though not in the way Mr. Thwaite originally proposed.) Then again there is in England a small amount of water power which might be harnessed. At the present time there is just below Snowdon a power station capable of developing over 6,000 horse-power, and there must be, in many other parts of England, water power of at least as great amount which might be put to useful purposes. These natural sources of power can only be used if other conditions are favourable, and it becomes necessary to discuss some of the reasons which have led to long distance transmission being developed at so slow a pace in this country.

In the first place the only possible method for long distance transmission is absolutely determined on financial grounds, to be an overhead line. No one has seriously proposed a transmission scheme of 100 miles or more, using underground cables. Such a plan would be enormously costly and would hardly supply power at a rate which would enable it to be widely used. With an overhead line the question of "way leaves" is fundamental, and the difficulty of obtaining these at a reasonable rate, is one of the chief reasons for the slow progress in long distance transmission. Only a few weeks ago Mr. Woodhouse, the engineer to the Yorkshire Power Company, who has the largest length of overhead line in operation in England, was deploring the difficulties with which he was faced in this direction. The exorbitant demands of land-owners, the difficulties due to crossings of roads and railways make the lot of the transmission engineer a much less happy one than it is in countries with less dense populations and with more power over the land. For the sake of comparison it may be interesting to refer to the regulations in force in some American States. In these States the power companies have rights of expropriation and arbitration if they can show sufficient cause for a transmission line passing over a particular plot of land which the owner desires to protect. Although this plan would hardly be likely to find favour in this country, there seems little doubt that

some legislation will be required if overhead lines are to be used to any great extent for the transmission of power. In the second place coal in England is very cheap and the problem of electrical transmission is very largely an economical one. The question that has to be answered is, "Is it more economical to transmit the power required as electrical power or in some other form?" This question can only be answered when the facts and figures relating to any particular scheme have been fully discussed and considered, but in most instances there is very little doubt that the electrical method, on purely economical grounds, will be found to be the best. The comparison in this country has to be made, between the cost of carrying coal and of carrying electrical power. A very interesting calculation of this kind has recently been made by Mr. Miles Walker, for an overhead transmission line between the coalfields in the Midlands and London. He estimated that apart from other obvious advantages a saving of £120,000 per annum could be effected if electrical energy were produced at the pit's mouth, transmitted at high pressure to London, and there used; instead of as at present, carrying the coal there and producing the electrical energy at the point where it was required. Another method of transmitting power that has been suggested is the conveyance of gas in pipes from gas producers located in the coal district to the place where the power is required. These schemes have, however, so far not been developed on any large scale chiefly because of the inherent difficulties in the operation of gas engines as compared with electric motors. Anyone who has had experience of these two types of machinery will have very little difficulty in deciding which is the most suitable in locations where there is no skilled labour. The greater ease of manipulation has done more to develop the use of electrical power in small works and factories than anything else, and with the increase in automatic controlling devices in connection with electrical machinery progress may be expected at an ever increasing rate. Electricity will be used more and more because of its applicability to all kinds of purposes. It can be employed for lighting the workshop and the house, as well as supplying all the motive power that may be wanted either for domestic or manufacturing operations. It may be used for lighting streets or for conveying passengers along them, and it will undoubtedly be used directly in the future for many manufacturing and industrial processes, and in the manufacture of iron and steel, aluminium, calcium carbide, and many other chemical products.

The more universal use of electrical energy will have an enormous influence on the appearance and healthiness of towns and cities. Consider for the moment what would be the result of the substitution of electricity for coal in all our railways. A very remarkable investigation

has recently been undertaken in Chicago as to the amount of smoke which is caused by the trains running into that city. This investigation was undertaken at the instance of the City Authorities with the view to an application for compulsory powers to force the railway companies to electrify all lines running into the city (as has already been done in New York); the result of the investigation shows that over 18 per cent. of the coal brought within the city boundaries was burnt by steam locomotives running on tracks inside this area, that 43 per cent. of the total smoke produced was caused by the railway trains, and a weight of over 560 tons was deposited daily from the locomotives in the city area. Facts like these show how great the dirt and smoke caused by locomotives may be. Chicago is, of course, an exceptional town in that it is the centre through which practically all the wheat grown in the Western States of the Union is transported on its way east, besides being the greatest depot for all kinds of farm produce and cattle. The number of trains entering and leaving daily is greater than in any other city in the States, but it must be remembered also that the area included within the city boundary is a very large one.

Railway electrification, especially on suburban lines, has already done much and will do still more, it is to be hoped, in the future, in the purification of the atmosphere of towns, as well as in greatly increasing the comfort of the passengers that travel over them. Although railways are responsible for a great deal of the dirt of a modern town, the ordinary domestic fire is a far worse offender. Not only does the use of coal in houses greatly increase the amount of work of the domestic servant, but even before it is burnt it increases the labour involved in keeping a house clean. When the coal is burnt in most modern grates (though great improvements have been made of recent years in their construction) a large proportion of the heat of the coal goes up the chimney, and what is perhaps still worse, a large amount of smoke is produced. It is this smoke which goes to the atmosphere through the chimney and returns to the house through the window, which causes the greater part of the dirt, the removal of which is a large part of the problem of the modern city housewife. It is no exaggeration to say that the abolition of the domestic fire and cooking range would do more to solve the domestic problem (if a domestic problem may be said to exist in this country) than any other reform in the town life of to-day. The use of gas for heating has made great strides, greater perhaps than is generally realised. The engineer of the South London Gas Company stated recently that the heaviest load on the gas station of his Company occurs between 11 and 1 o'clock on Sunday mornings, when it is the custom of the housewife or landlady in his district to cook the Sunday dinner. The consumption of gas in

the evening when the streets and houses are lit falls far short of that during the hours when gas fires are in greatest use. The influence of the use of gas fires on the atmosphere of the Metropolis is evidenced by the fact that the number of days of heavy fog during the past few years is only a fraction of what it was 20 or 30 years ago when the coal fire reigned supreme. Although gas fires give no smoke they give noxious products of combustion, and anyone who has gone through the transformation of house from gas to electric lighting cannot fail to be impressed by the greater purity of the atmosphere in the house where none of these fumes are produced. These products although they give no dirt must tend to devitalise the atmosphere of rooms, and it is on this ground mainly that the electric radiator must be regarded as a step in advance. Were it possible to light and heat our houses by electrical energy supplied by stations outside our cities, the atmosphere of our towns would be transformed, and cities would be very different places from what they are at present. Not only would the houses and public buildings be cleaner, but the atmosphere would be such as would enable trees and flowers to grow in a way that is unknown at present. Even the cities of to-day might be made, to a certain extent, garden cities. But the use of electrical energy for heating is not likely to progress very rapidly until the cost of a unit of electric energy is a fraction of what it is at present. It is outside the scope of this article to discuss the conditions which will enable the cost of electrical energy to be materially reduced, they are now well understood, and there is no question that if electrical development takes place along the right lines that electrical energy will be obtainable at rates which now appear beyond the realm of possibility. Mr. Ferranti in an address recently delivered before the Institution of Electrical Engineers gave it as his opinion that it would be possible to supply electrical energy at an average price of one-eighth of a penny per unit, and when that time comes, as it is bound to do sooner or later, electricity will be the universal servant. It will be used for lighting and for power, for heating and for railways; it has even been suggested that it may be used for controlling, to a certain extent, the weather, by causing the raindrops to condense and fall over defined areas.

E. W. MARCHANT.

TOWN PLANNING SCHEMES IN AMERICA

III.—BOSTON

A consideration of Boston in connection with Town Planning will differ materially from that of Chicago or Washington. In the case of Chicago one single and gigantic report was under review, which took into consideration every aspect for improvement which a vast utilitarian town is capable of—there were proposals for a park system, for traffic improvements, for monumental grouping of buildings, and for a treatment of the lake front. With Washington, on the other hand, there was an original plan to be reckoned with, and the scheme consisted in a restoration of the intentions of the original plan and a proposal for its further amplification owing to the natural growth of the town since its foundation.

The case of Boston is different. Here we have a more or less haphazard town which has grown up without conscious Town Planning agencies at work, in a similar way to that in which Chicago has grown, but with this difference, that whereas Chicago has been stretched on the rack of an artificial gridiron (which can hardly be called Town Planning, it is so mechanical), Boston resembles an English town in its picturesque haphazard, which has this advantage over the artificial Chicago, that the natural radial routes, required for traffic, form the basis of its plan. Further, in the place of one comprehensive report to deal with the whole town, we find that Boston has already carried through practically to completion one great piece of Town Planning, its park system, which thus gives it a reality and an interest which the magnificent restoration of Washington and the dream of Chicago do not attain to. Again, the Official Report of the Commission on Metropolitan Improvements which was published in 1909 was preceded by unofficial enquiries pursued by organisations such as the Chamber of Commerce, Associated Board of Trade of Boston, Citizens' Association of Boston, Master Builders' Association, Boston Society of Civil Engineers, and the Boston Society of Architects. Among the reports published by these various bodies containing suggestions for the improvement of Boston, the Report of the Committee on Municipal Improvements of the Society of Architects stands out as, perhaps, the most suggestive and covering the widest field; it also received the financial support of several of the other organisations. It naturally deals with the architectural rather than the traffic aspect of the case, but it also contains an interesting proposal for a remodelling of the Docks. Finally, in 1909 appeared the Official

Report of the Commission on Metropolitan Improvements, which had been appointed in 1907, largely as the result of these other various organisations, and particularly of that of the Society of Architects. This official report is naturally a much more sober production than the architectural one, and the question of paramount importance which it sets out to deal with is transportation; it also, however, touches on many of the points raised in the Architects' Report, though the latter still remains the chief source of suggestion for architectural improvements.

A study of Boston, therefore, naturally divides itself under three aspects—parks, architecture, and transport; the first has been accomplished, the other two are still before the public in the form of proposals. The following remarks will therefore be taken under these three headings—The Park System, the Report of the Society of Architects (1907), and the Report of the Metropolitan Improvement Commission (1909).

The Boston Park System

Before describing the park system, it is necessary to say a word or two about the formation of the town itself, although this will be done as briefly as possible seeing that it is not a complete description of the town that has been aimed at (as was the case of Vienna in the third number (Vol. I.) of the Review), but only in so far as the city has been the subject of the recent Town Planning movement in America.

The city of Boston possesses a site of marked irregularity and occupies a series of islands and promontories at the head of Massachusetts Bay. Two broad river basins, the Charles and Mystic River, also further complicate the landward side of the site. Boston is placed on a peninsula between the Charles River and a narrow inlet called South Bay; it has spread out southward in an irregular fan over undulating and rising ground in districts known as Roxbury and Dorchester. For the purpose of Town Planning, however, Boston must be taken in intimate conjunction with the other towns, which with one exception have been incorporated with it; these consist of South Boston and Brookline, to the east and west of Boston proper, and East Boston, Chelsea, and Charles-town separated by water. Between the Mystic and the Charles Rivers is the independent town of Cambridge, which exists on Harvard University. It is separated from the Boston Peninsula by the great basin of the Charles River, which until 1907 was tidal, but which has since been dammed up to form a large inland lake. This group, then, of separated towns forms one real community of Greater Boston, with a population of nearly one million; and taken in conjunction with the communities within a radius of 11 miles there is a population of one million and a quarter.

It is for the population of this area that a comprehensive park system has been devised. In order to deal with it a Metropolitan Park Commission was appointed which was given jurisdiction over 38 separate municipalities in addition to that of Boston itself; each municipality bore its part in the cost in proportion to its resources and benefits, a proportion determined by a special commission.

As long ago as 1886, in a book published by the Park Department on the proposed lay-out of Franklin Park (a town park of over 500 acres in extent on the rising ground to the south, which had been acquired two years before), it was shown that Boston then possessed two park groups, or systems, one containing a certain long boulevard—Massachusetts Avenue—leading to two reservoirs, the other, though not quite complete in all its links, connecting this new town park by means of a botanical garden, a long series of pools (then little more than an unsightly swamp), and Commonwealth Avenue with the Common, the central park of Boston. Here then in these two isolated systems was the germ of the single unified park system which has since been carried out. In Liverpool a similar germ is to be seen in the Prince's Boulevard, Prince's Park, and Sefton Park, but hitherto no attempt has been made to connect it up with the centre of the city on the one hand and with the open country on the other.

Since 1893 the policy has been pursued of connecting up existing parks and open spaces and adding vast areas of open country, so that there are now within a radius of 11 miles of Beacon Hill, the centre of Boston, 15,000 acres of parks and 25 miles of parkways; these have been acquired at a cost of over five and a half million pounds and are maintained at an annual cost of £100,000; in the last ten years alone the Park Commission has expended over two million pounds, three-fifths of which have been for the cost of land.

The centre point of the present park system is the Boston Common, which has been reserved for public use since 1634, an unrailed-in park traversed by many paths and planted with fine elm trees. The State House, which overlooks the north-east angle of the Common, is placed on Beacon Hill, one of the original three hills on which Boston was founded, and may be said to be the centre point of Boston proper. The park system, therefore, begins in the very heart of the city.

The Common is contiguous to the public garden, 24 acres in extent, which was reclaimed in the middle of last century from a mud flat. From this point the rest of the park system is connected with the centre of the town by a straight boulevard, Commonwealth Avenue, 240 feet wide, and planted with a double row of trees. It would be impossible without the aid of a map to a very large scale to trace the directions

of the system which may be seen on plate 28, branching from this point. Generally speaking the radial connections follow the line of four river valleys, the Mystic River, the Charles River, the Back Bay Fens, and the Neponset River. Plate 28, Figure 1, shows the entrance to Back Bay Fens from near the end of Commonwealth Avenue; these were originally a series of muddy swampy pools, but have been laid out in the most attractive way by the late F. L. Olmstead, with the result of making the quarter adjoining one of the best residential districts near Boston. The entrance to the suburban town of Brookline is close to the beginning of this section, which, as already stated, connects up (now completely) with Franklin Park, the real Town Park of Boston, and was one of the two original series which suggested the formation of the whole system.

But if it is impossible to enter into the details of the park plan, mention must be made of the three great natural reservations which complete the three-fold classification into which parks should be divided, *i.e.*, the Town Garden, the Town Park, and the Nature Reservation. These three reservations are the Blue Hills, the Middlesex Fells, and the Lynn Woods. The Blue Hills contain 4,850 acres, the Middlesex Fells 1,800, both famous for the beauty of their hill scenery. There are also two important beaches, the Revere Beach in the north and the Nantasket Beach on the south of the bay.

There yet remains a few links to be completed in this chain which are indicated on Plate 28. The outlying ones will complete the girdle of natural scenery. The inner link (shown dotted) will connect the northern with the southern sections, at present separated by the broad Charles River basin. It is certainly a link which is very desirable to round off the system, especially as it crosses the Charles River at the Harvard Bridge at the point where Commonwealth Avenue and Back Bay Fens intersect, but it is to be feared it will be a long time before it is carried through, as the direction chosen crosses the town of Cambridge, and will necessitate the destruction of buildings throughout the length.

The Report of the Boston Society of Architects

The Report begins with a general survey of what other towns are doing; these towns are chiefly American, but also include the London Kingsway (which is cited for qualities which unfortunately do not exist), and Buda-Pesth. The illustrations are desultory and have no immediate connection with any proposals for Boston, but may have been of service in awakening general public interest. Then follows a short diagnosis of the case of Boston, the general conclusions of which are somewhat unexpected, being that, "to improve Boston it is necessary to consolidate the population by filling the gaps in the city plan; avoid congestion by

enlarging the business district; and keep within the city limits the prosperous and educated class that now goes to the suburbs." To explain this it must be added that some of the "gaps" alluded to consist of large railway sidings, which, combined with the already broken-up nature of the site, isolate certain sections of the town, producing overcrowding in one direction and an unnecessary straggling out into the country in another. It is not generally necessary in this country, however, to desire more compactness in our towns. An obstruction to growth seems to be caused, curiously enough, by one of the very parkways of which Boston is so proud. There are the Back Bay Fens, the entrance to which is illustrated on Plate 28. It is suggested that a considerable number of cross roads should be taken through the parkway in order to make the land on the far side immediately available for near suburban extension. The further residential district of Brookline is already fairly built up, but this nearer section was cut off by the too impervious parkway.

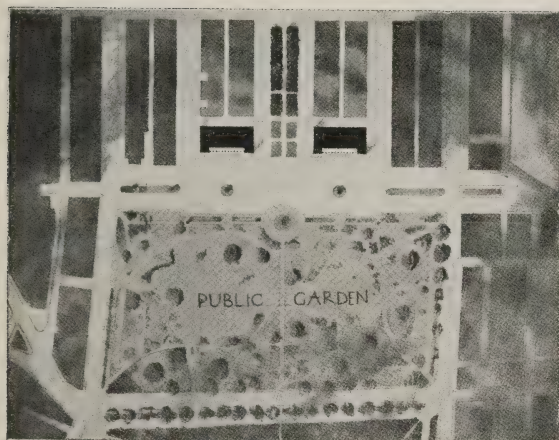
Several other suggestions are made, including the one for Copley Square, but most of them are dealt with more fully in the Metropolitan Report. There are three which deserve mention: the suggestion for two circumferential boulevards in order to give intercommunication between the outlying districts (Boston's weakness in this respect is fully gone into in the later Report); a proposal for a monumental termination to Commonwealth Avenue—the gateway of the park system—by the placing of two large public buildings facing the Public Garden (Plate 29); and an island in the Charles River.

Island in the Charles River

This last mentioned is the most attractive architectural suggestion which has been made in connection with Boston, and two alternative schemes are illustrated. The practical object is a more intimate connection between the face of Boston proper and the opposite shore of Cambridge. But the monumental effect is undoubtedly the origin, and a comparison is made with the ancient Roman island in the Tiber. The basin of the Charles River which separates Boston Proper from Cambridge is a wide expanse of water which has recently been dammed up so that it is not tidal. Its width at Harvard Bridge, where the Massachusetts Avenue crosses it (one of the main cross-country connections, see Plate 31), is over 700 yards, or over three times the width of the Thames at Westminster Bridge. Wide as it now is, it was formerly considerably wider; the dotted line on Figure 1 shows the original size of the Boston Promontory, which was connected to the mainland by a neck only wide enough to take one of the radial streets, the present Washington Street.



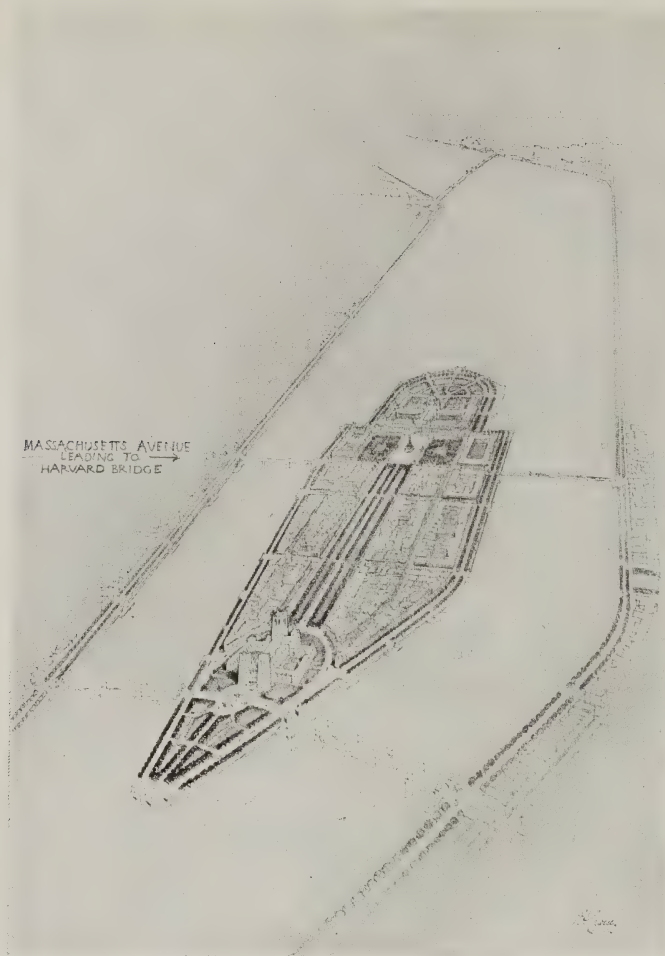
1. BOSTON COMMON



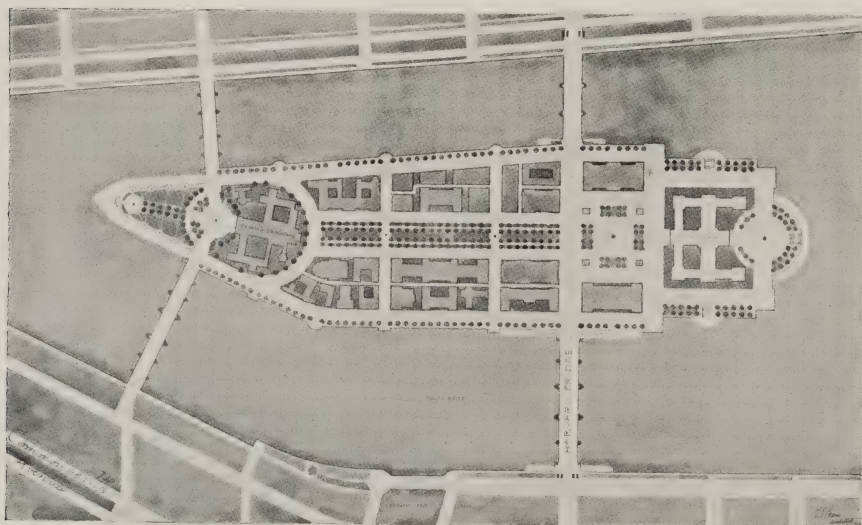
2 & 3. SUGGESTED TERMINATION TO COMMONWEALTH AVENUE



4. PUBLIC GARDEN AS EXISTING
BOSTON



SUGGESTED ISLAND IN THE CHARLES RIVER



PLAN OF ISLAND
BOSTON

The space between the neck and the present basin were swampy tidal flats; they have gradually been reclaimed, but it is claimed that the basin is still too large for monumental effect and detrimental to through connection between the two townships. Rather than continue to advance the Boston shore, the proposal is to plant a long island in the basin, which would improve both defects, monumental and practical.

The design which we illustrate, by Mr. R. A. Cram, shows the shorter island of the two, and suggests that at one end might be located the new Episcopal Cathedral surrounded with various buildings more or less connected, and at the other end a Civic Centre might be arranged (admittedly a serious requirement in Boston), containing as its central feature a building for the administration of the entire Metropolitan District.

Improvement of Port of Boston.

This important question is discussed at some length, and after a comparison (with illustrations) of other famous ports, the suggestion is put forward for a series of parallel docks projecting from South Boston into the Old Harbour, as shown on Plate 31, No. 1. As an ingenious means of paying for these docks it is proposed to fill in a large tract, known as South Bay, shown dotted on plan, situated near the rear of these proposed docks, with material dredged during their formation. Reserving one-third of the area so obtained for streets, this would produce 400 acres of valuable land for offices of shipping agents, railroad and steamship companies, &c. Averaging the price to be obtained for land at five dollars a foot it would bring in 85 million dollars, or more than double the estimated cost of the whole new docks. Apparently this scheme did not find favour with the Committee on the later Report.

The Report also suggests the consideration of the improvement of internal canals and waterways connecting Boston with the interior of Massachusetts.

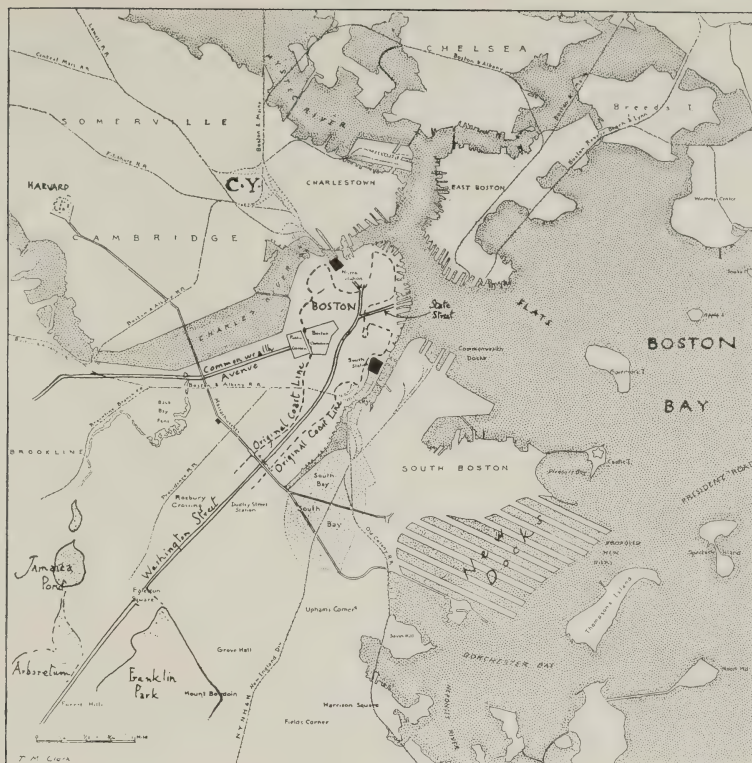
The Report of the Metropolitan Improvement Commission.

The lines of enquiry which the Commission was appointed to pursue by the Legislature were twofold: They were firstly to "Investigate and report as to the advisability of any public works in the Metropolitan District which in their opinion will tend to the convenience of the people, the development of local business, the beautifying of the district, or the improvement of the same as a place of residence." They were also further to "consider the establishment of a systematic method of internal communication by Highways, the control or direction of Traffic and

Transportation, and the location of such docks and terminals as the interests of the district may demand."

The optional subjects were thus of the widest scope, and gave the Commission a free hand to include anything they liked ; the mandatory subjects might be summed up under the single heading of Transportation. It was felt, therefore, that rather than trifle with a host of projects of different natures, it would be advisable to specialise on that question which was of paramount importance—the great problem of Transportation. The Report, accordingly, might be called a Transport Report, as it deals with little else—architecture is confined to a brief suggestion as to a civic centre. For this reason it lacks the attractive pictures of the Chicago and Washington Reports—in fact, it is illustrated by nothing but plans and theoretical diagrams, and the very binding of the book itself suggests the austerity of a New England work on old theology. To compensate, however, it possesses a thoroughness and solidity which place many of its sections on the plane of standard reference works on the subject. The way in which it has been compiled, also, has helped this solidity of utterance. The Commission itself consists of five members, three appointed by the Governor and two by the Mayor, and all representing different aspects : Mr. B. N. Johnson, Chairman ; Mr. H. B. Day, Finance ; Mr. Desmond Fitzgerald, Engineering ; Mr. T. J. Gargan, Transit ; and Mr. R. S. Peabody, Architecture. Mr. Peabody was also Chairman of the earlier Architectural Commission. Mr. Gargan, unfortunately, died before the Report was published.

The actual Report of the Commission occupies but a small part of the bulky volume, and only deals in a general way with the various questions, most of them different aspects of Transportation which have been dealt with. What has been done has been to delegate experts to make studies in their special subjects, always under the guidance and advice of the General Commission ; these are bound up with the Report, receiving their endorsement. Thus there are included (1) a study for the improvement of Boston Docks, together with notes on European Ports made by Mr. Desmond Fitzgerald ; (2) a study of the present steam railroad systems and their terminals within the district and their possible improvement, by Mr. G. R. Wadsworth, civil engineer ; (3) a study of the topography of the district with reference to the improvement of highways connections as a means of internal communication, by Mr. A. A. Shurtleff, landscape architect ; (4) various suggestions for a civic centre for Boston, by Messrs. Peabody and Shurtleff ; (5) a consideration of the feasibility of constructing artificial waterways and canals in Massachusetts and their possible relation to the Port of Boston, by Mr. R. A. Hale, civil engineer ; (6) a description of the water front of Boston Bay, by Mr. Sylvester



1. GENERAL PLAN (showing Outline of Original Town and New Docks proposed by the "Architects")



2. PLAN OF DOCKS PROPOSED BY METROPOLITAN COMMISSION

BOSTON

Baxter, Secretary to the Commission ; (7) a statement of the financial conditions of the Metropolitan District, by Mr. H. A. Day. In addition, Mr. Peabody, immediately on his appointment, made a long tour in Europe studying municipal and port improvements, the results of which he embodied in a pamphlet which was published separately by the Boston Society of Architects, and presented to the Commission as an aid to their work.

When it is realised that at least three of these Reports—the Docks, Railway Terminals, and Highways—are in reality exhaustive treatises on their subjects, with applications far beyond the immediate use of Boston, some idea may be gained of the importance of the volume. At the same time, the parts of these reports which do bear directly on Boston, touching, as they do, such intimate and local questions as volume of traffic along certain routes, property value, &c., are peculiarly difficult for a stranger to enter into, and prove particularly difficult to describe. At most a few points in these several reports can be selected, emphasizing, firstly, their general value as treatises, and, secondly, where it is possible to grasp the full significance of the situation, their relation to Boston itself.

The three aspects of transport which appear to have been regarded as of the greatest importance to the welfare of Boston are the improvement of its Docks so as to invite further commerce to enter into them ; the improvement of its connections with the interior, so as to obtain as much as possible of the outgoing products of America ; and the improvement of the connection between these, or, in other words, the cheapening of transit from terminal to terminal. It was generally recognised on all hands that the achievement of the best facility in regard to these for Boston itself would benefit and react upon the whole Metropolitan district, and that therefore a study of its more intimate connection with Boston was of great importance. The studies of the Commission have been necessarily of a preliminary character ; the broad lines of suggested improvement and development alone have been indicated, and no detailed engineering plans or estimates of cost have been made.

The Docks, by Desmond Fitzgerald

The actual Docks Report is a short one, and substantially consists in the suggestion for the erection of a new port to the S.E. of East Boston, as shown on Plate 31, No. 2. The merits of this position, as compared with that suggested in the Architects' Report, we are not sufficiently acquainted with the harbour to comment on. The point that interests us is the suggestion for a Free Port, to be separated from the rest of the port by some fence or barrier.

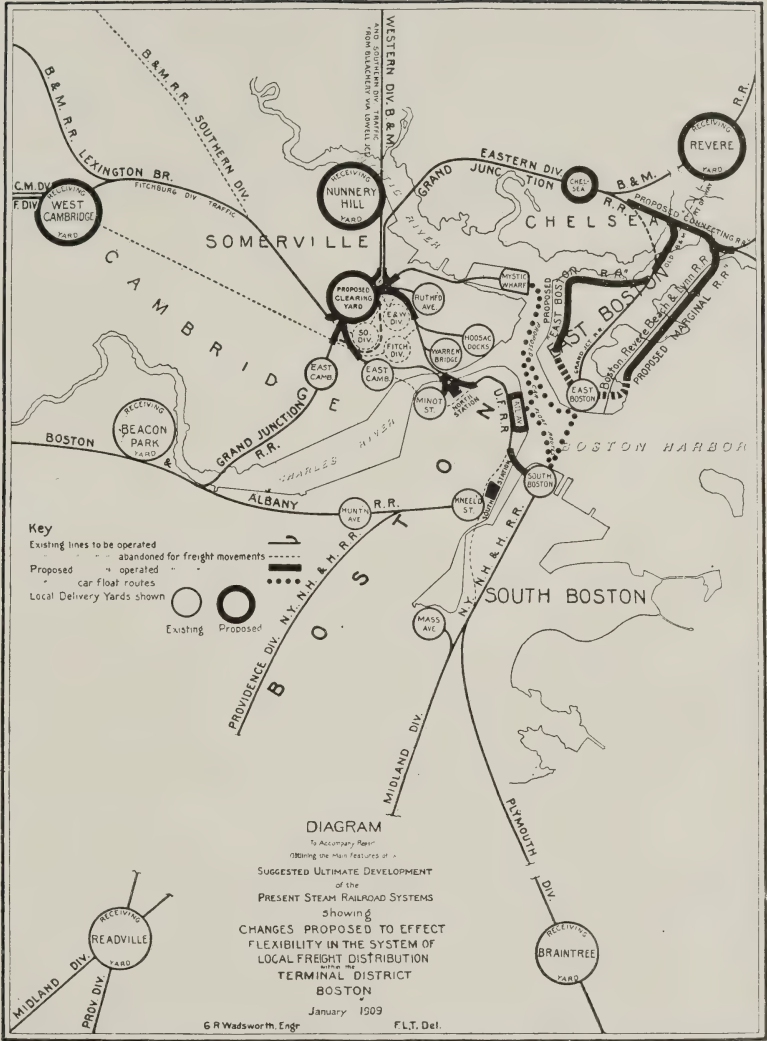
“The area might contain docks, warehouses, manufactories, a power house, railway tracks, and other accessories—such as rooms for the display of foreign goods. Here our merchants could examine the goods of foreign manufacture as freely as by making a trip abroad, and order their importations. Raw materials brought in free could be manufactured and turned into merchandise for any port, foreign or domestic, and customs collected at the port of entry. The free port would be to all intents and purposes a little foreign nation. Factories would be situated favourably for receiving coal, and for securing other benefits resulting from a position on the salt water. A little industrial community would be formed where every modern invention could be brought to bear in the interests of economy and the saving of time. Long hauls by teams through busy city streets would be saved, and handling of raw materials and goods reduced to a minimum.”

The appendix to the Report is of considerable interest. The two European cities which Mr. Fitzgerald selects as offering useful lessons in planning the future Docks of Boston are Liverpool and Hamburg. “I might also,” he adds, “omit the first-named entirely, were it not for the fact that as a system it stands without a rival.” Of more value than physical similarity is the wonderful example which Liverpool affords by the “organisation of the great Trust which manages the Docks,—an inspiring model for imitation.” The other ports also described are London, Bristol, Havre, Antwerp, Rotterdam, and Bremen.

Railroads and Terminals, by G. R. Wadsworth

The Terminal question is considered by the Commission as the paramount one, and certainly Mr. Wadsworth's report is the longest, the fullest, and probably the most valuable in the volume. It is also the most difficult to consider. It consists of three sections, with an introduction and conclusion. The three sections consist of : Freight Traffic, Passenger Traffic, and Water Front Development.

I.—The Freight Section begins with a very careful summary of the situation, giving the amount of goods entering Boston by its different lines, the cost of transit, and the present means employed. “The existing terminal facilities of Boston—indeed, the whole railroad situation controlling the movement and distribution of freight in and around the city—are the direct outcome of the situation of twenty-five years ago, when there were eight distinct railroad companies, each with its separate terminals for freight and passengers. As eight railroad managements then dealt with these important traffic operations, each from the standpoint of its own interest and convenience, so to-day three railroad managements are doing the same thing.” The Report insists on the absolute



RAILROAD TERMINALS

BOSTON

necessity of a unification of treatment in the interests of all concerned. The only feasible way in which this could be accomplished would be by the formation of a Terminal Company to be organised and promoted by the joint action of the public authorities and all railroad companies. The Terminal Company will be jointly managed by these two interests—the Commonwealth and the Railroads, and the latter might be paid for the properties acquired from them in stock or bonds of the Company. Terminal operations could then be controlled and managed in a way that would amply conserve railroad interests, and, at the same time, afford a proper measure of protection to the public.

Turning to the actual physical improvements possible under such a financial scheme, the Report first disposes of the suggestion of a Belt line for Boston, that panacea for traffic congestion which is always suggested. As the author points out, Boston's transport is almost entirely a rail to port affair; there is little all-rail through traffic. The great requirement is to get from each terminal to the port, and not from one railroad terminal to another. The three objects of a Belt route may be summarised as follows: (a) As a means of Detour in order to avoid congestion at the centre; (b) to provide freedom of exchange of goods entering Boston, in order that they might be taken to the terminal nearest the point of shipment. This in some ways would be of service to Boston, but it is contended that this flexibility of movement and facility of interchange can be accomplished by rebuilding and augmenting certain features of the existing freight terminals as they are to-day. This interchange, performed at or near destination, would obviously be more direct and save in mileage over that effected by movements via a Belt route. (c) To stimulate industrial activity; but it is pointed out that the whole of the districts surrounding Boston to the landward are residential, of the most attractive nature, and the future industrial sites for Boston are without doubt on the waterfront where land is cheaper or might be reclaimed for the purpose. The improvement of marginal routes is therefore more desirable than a Belt for this purpose.

This treatment of the Belt proposals is a good example of the thorough way in which the whole Report is done. Following on it, comes an abstract of the Report by W. J. Wilgus on an improved method of Freight Distribution for New York. The basis of this scheme is to direct all freight destined for New York by every trunk line into one or more central receiving yards. "At these yards, every ton of freight will be unloaded and again loaded into small 10-ton cars of standard gauge. These small units will then proceed by electric power through one or more new tunnels under the North and East river, into a four-track subway, skirting practically the entire river-front of Manhattan.

“From this proposed four-track sub-surface marginal railroad, through the streets, will lead single or double track tunnels located in the present vault areas under the side-walks, from which goods will be received direct to the basement of sub-basement floors of the store or warehouse. From this marginal railroad, tracks will also lead to every pier and wharf.”

Its advantages and objections are thoroughly gone into, and, on the whole, it is decided that for the present such a system is not suited to Boston.

Having disposed of these two suggestions, the Report outlines its proposals for improving the flexibility of its terminal system, with, of course, the one object in view—that of cheapening terminal charges.

The chief proposition consists in the establishment of a central clearing yard, as shown on Plate 32, and also at C Y on Plate 31. “In its broadest conception, this feature is located at the focus of all entering trunk lines, where cars are classified or sorted and forwarded to the desired points for local delivery.” By the fortunate existence of the Grand Junction Railway, which practically forms an inner belt line, and the Union Freight Railroad, which connects by a marginal line Cambridge with Boston proper and South Boston, this one clearing yard could be made to act as the sorting ground for the whole district; the North and South connections (Mystic Wharf and South Boston) and the East and West (East Boston and Boston proper) would also be supplemented by a regular system of car floats. It is a singular thing that Boston, which is astonishingly split up by water channels, should at this present day connect its terminals and do its distributing almost entirely by teaming. An adequate system of car floats and a series of local freight yards, as shown on Plate 32, would largely obviate this teaming, greatly reduce the cost of handling, and relieve the streets of a vast amount of unnecessary congestion.

In an ideal system of this sort, where all trunk lines met near the clearing yard, there would also be a terminal receiving freight yard to operate in connection, for the receipt of inbound trains prior to sorting cars for local distribution, for making up outbound trains after cars pass from the several local delivery stations through the clearing yard, for the general sorting of cars, &c. In Boston, however, with its irregular railroads, several of these will be necessary, as shown on the plan, but they will facilitate the action of the centralised clearing yard.

It is claimed that with the above arrangement the interchange of tonnage in car-load lots between the several entering trunk lines and the various local delivery stations and docks will be possible, with few limitations, and at greatly reduced cost.

II.—Passenger Traffic. The passenger question at Boston is not so important and not so complicated ; at the same time, the Report contains many useful generalisations, such as the differentiation of four classes of traffic into Through Express Traffic, Suburban Traffic, Rapid Transit Service, and Street Car Service. The chief suggestion consists in joining the two main terminal passenger stations, the North and South, by a loop line, which would give another station at the junction of Washington Street and State Street, as shown on Plate 31, No. 1, in the very heart of business Boston. The electrification of all passenger lines entering Boston, and the consequent possibility of second series of tracks 20 feet above or below the present level, in order to keep the suburban train service separate from the main lines, are also features of the proposals.

III.—Water Front Development. This consists in a more complete system of marginal railroads to serve the Docks, particularly of East Boston, and an improved connection of the terminals which are situated at the Docks themselves, such as at the Mystic Wharf and Hoosac Docks, and the East Boston and South Boston terminals.

In conclusion, the author points out that “ One fact stands out paramount to all—the necessity of concerted action to the subjugation of the selfish motives. In no other way can an enduring system be planned, and much less executed. The unity of the entire problem must be accepted as the foundation whereon the superstructure is to be erected and knit together into a homogeneous system.”

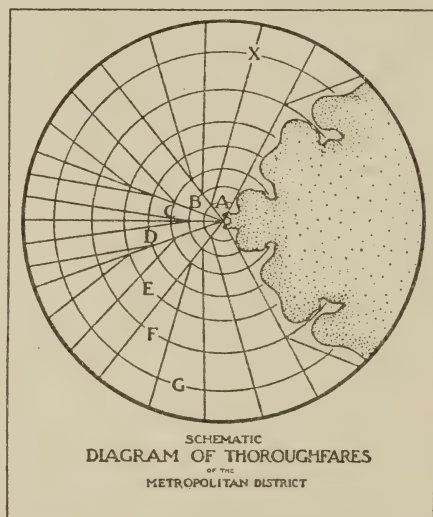
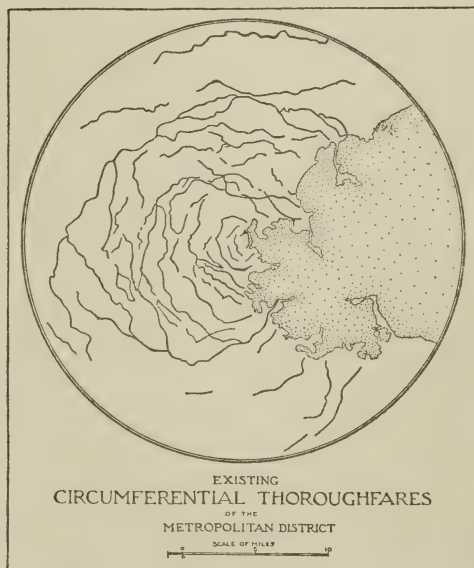
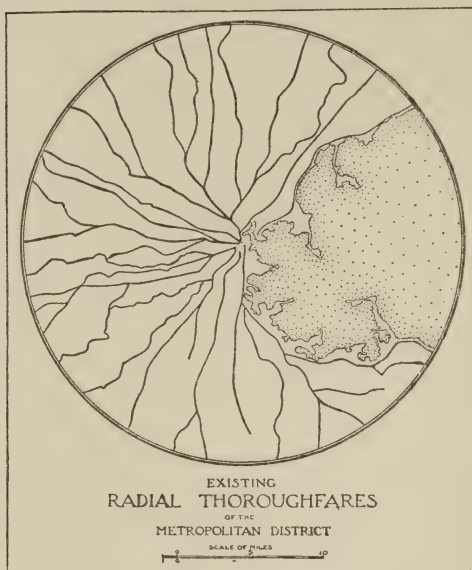
The Metropolitan Plan, by Arthur A. Shurtleff

This able Report deals entirely with the highways and roads of the Metropolitan District, of which Boston is the centre. It in reality consists of two parts, although one of them is called an appendix. The first part consists of an analysis of the general plan of the district (rather than that of Boston itself), the general system upon which the street plan of these suburbs has grown up, the types of squares which occur at traffic centres, and general observations upon the desirable width and gradient suitable for various types of streets ; the second part or appendix, as it is called, gives a brief statement of the more important street improvements needed for each community (including Boston) in the district. The first part deals in general with the whole question of road systems, &c. ; the second suggests a series of local improvements.

A good deal of the first part, however, is also particular to Boston, and we need hardly concern ourselves with the type of planning which the suburbs and villages of the district present. It is interesting, in passing, to note the various degrees of rigidity with which the grid-iron has been enforced on to irregular ground—in some instances making

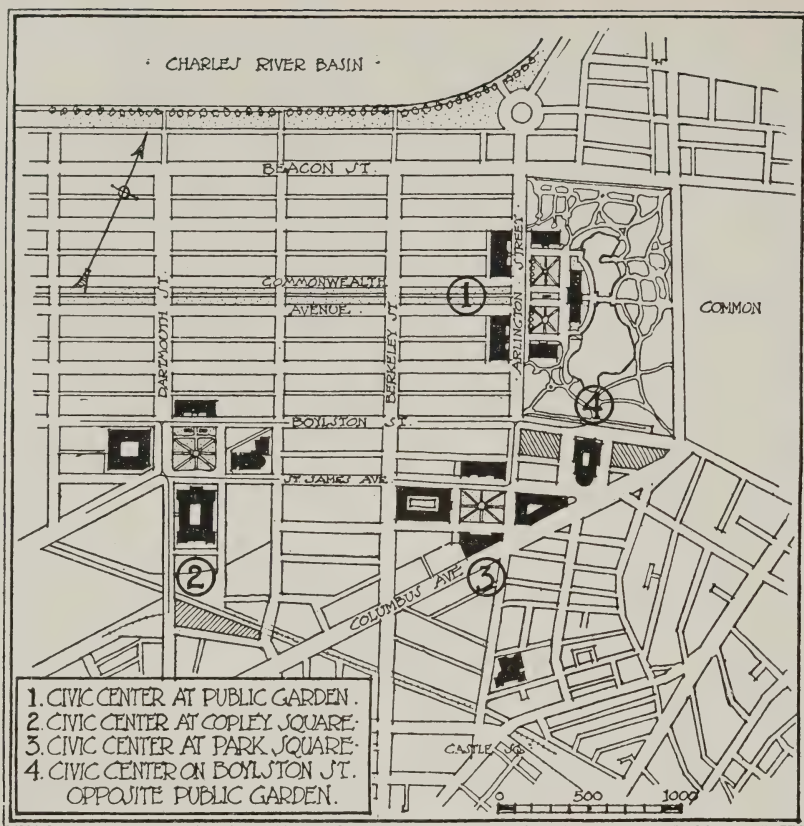
streets practically useless for wheeled traffic. There are, however, examples quoted of reasonably graded street planning which suggest that the grid system is breaking up.

The most interesting part is the analysis of the natural radial routes converging on Boston, and circumferential routes connecting the outlying townships producing the accompanying schematic dia-

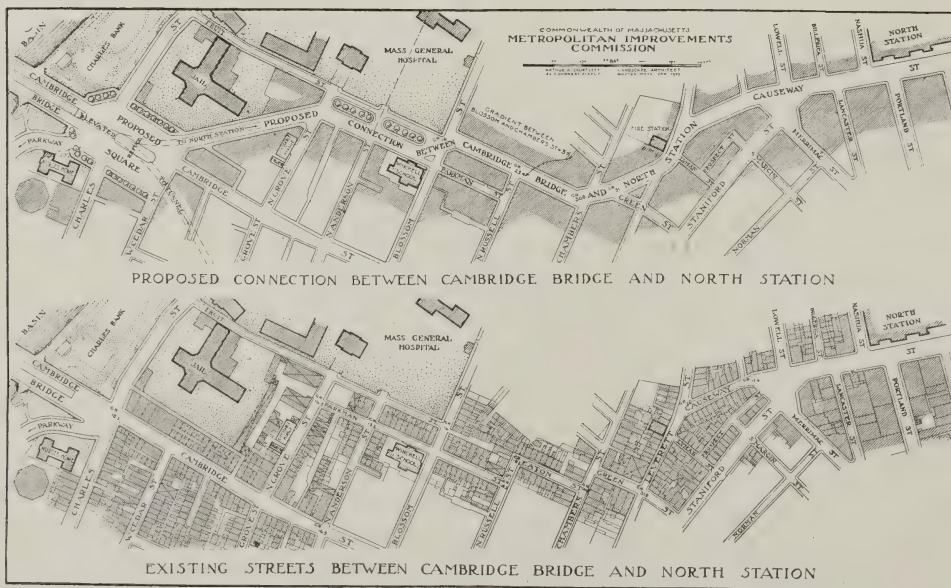


gram. The radial routes are practically complete, and could hardly have been laid out more uniformly if they had been carried with regard to a general scheme. The circumferential routes giving the cross district system of highways are also fairly symmetrical, but they need joining up; in many cases, as the diagram shows,

a very little amount of linking together will produce an orderly and efficient system of circumferential thoroughfares.



1. SUGGESTED POSITIONS FOR CIVIC CENTRE



2. STREET IMPROVEMENT BETWEEN CAMBRIDGE BRIDGE AND NORTH STATION

On Plate 33 we illustrate one of the numerous and practical street improvements recommended in the second part; it opens up a much-needed connection between one of the Cambridge bridges and the North Union Station. Another is shown on the line of the missing link across Cambridge alluded to under the Park System. It is not, however, proposed in the Report as a park way, but as a traffic route.

It will thus be seen that the proposals for the Metropolitan plan contains no such drastic remodelling of the central area as was suggested for Chicago; but with infinite and painstaking care it goes through every village and suburb of the whole district, and points out the improvements wanted.

*A New Civic Centre of Boston, by Robert P. Peabody and
Arthur A. Shurtleff*

This is the one architectural excursion which the Report has permitted itself, and it is indeed a sober flight. With absolute calm the authors report on some eight suggestions, which they reduce to four, and we, from the point of outsiders, would be inclined to reduce again to two. We rather wish, in fact, that the Report were a little more dogmatic in such a matter,—they merely content themselves with pointing out possibilities. The most obvious site would seem to be No. 1, Plate 33, which is completing the suggestion put forward by the Architects' Report (see Plate 29); it is at the point where Commonwealth Avenue, the entrance to the Park System, abuts on the Public Garden. The City Hall would be placed in the Garden itself, and access across the Common would lead directly to the centre of the business life of the city.

The second site is Copley Square (No. 2), and the object of proposing it here is obviously rather as an opportunity of straightening it up and completing it, rather than as being logically situated with reference to the plan of Boston as a whole. Copley Square contains two of Boston's greatest buildings—Richardson's Trinity Church and McKim's Library, but these are grouped with several buildings of a low order of merit—the Art Museum, the Westminster Hotel, the New South Church, &c., which at present make the square a complete failure. It is hoped by sweeping the Art Museum away and placing the City Hall on the site, to be faced by another new building across the square, to make it, what it ought to be, one of the finest squares in America. But we feel that this suggestion comes from an architectural rather than a town planning (in the largest sense) point of view.

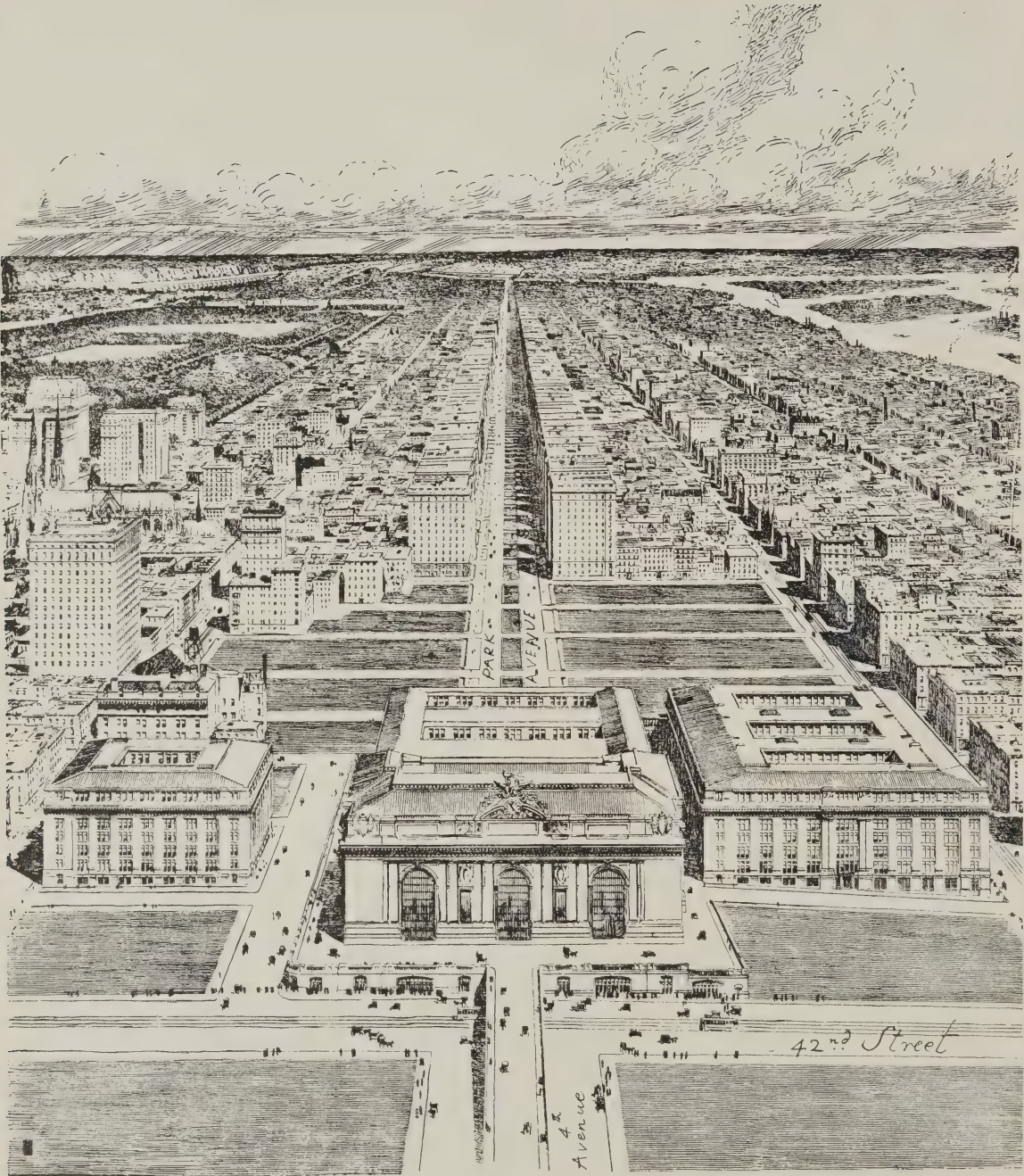
Waterways. The Water Front of Boston Bay. Finances

We do not propose to go into detail with these three Reports. The general result of the Report on Waterways, by Mr. R. Hale, is that it is hardly worth while renewing the means of transport by canal which was abandoned on the advent of railroads. America, in this way, differs from Europe, and especially from Germany, in the great preponderance of the railroad over waterways for transportation, and it appears to be undesirable for Massachusetts, at any rate at the present, to attempt to alter this.

Mr. Baxter's study of the Water Front of Boston Bay is a thorough description of the commercial and recreationary uses to which the coast line has been and may be put ; it does not, however, attempt to go beyond being general and descriptive in character.

The Finances, by Mr. Henry B. Day, are disappointing in this sense, that they merely consist in a statement of the condition of the Metropolitan District of Boston in December, 1908. There are no suggestions as to how the various improvements outlined through the Report may be realised. It is stated elsewhere, in the General Report, that it was impossible, in the time given to the Commission, to investigate fully the cost of what they recommend, and they did not wish to make rough estimates, which would carry no real conviction.

P. ABERCROMBIE.



General view looking down Park Avenue

GRAND CENTRAL STATION, NEW YORK

GRAND CENTRAL TERMINAL STATION, NEW YORK.

In connection with the proposals which have been recently brought forward for moving Charing Cross Station across the Thames and also for re-modelling Euston Station, it may be interesting to see what is the most recent American solution of the Railway Terminal Problem. The new Grand Central Station in New York, which is at present in course of construction, will be the greatest railway terminal in the world, and it will embody all the engineering skill and improvements which American railway planning has to show. Situated at present facing down Fourth Avenue, with its tracks approaching it down Park Avenue, as the other section of Fourth Avenue is called, the station blocks one of the principal avenues in New York, and renders more than half of its length uninhabitable by reason of its tracks running down the middle of it. It is connected with the heart of New York by the New York subway, which, leaving Broadway, passes along 42nd Street to the Grand Central Station, and then turning at right angles continues in a straight line under Fourth Avenue to the City Hall.

Instead of a single structure this new gateway to New York will be a group of magnificent buildings. But all the machinery of this vast terminal—the signals, the tracks, and the hundreds of trains—will never be seen from the street. They will be less in evidence than the engines in the heart of an ocean liner. On the surface—the promenade deck—two miles of streets now closed to traffic will be opened. Where is now only a maze of uncovered tracks will rise block after block of splendid structures, some of them devoted to the arts and others to commercial purposes. Plate 34 shows the many vacant sites which will be available.

The crosstown streets from 45th to 56th inclusive, which now come to dead ends at the railroad yards, will be continuous thoroughfares. Park Avenue will be extended north from its present high level at 40th Street. It is to bridge 42nd Street and in a broad plaza swing around the great new station structure. Thence as a new street it will stretch northward until it joins its present end at 57th Street.

These changes will revolutionise the character of this part of the city. Along the new part of Park Avenue will be constructed some of the finest apartment houses in the world. This new north and south thoroughfare will draw much of the wheeled traffic from Fifth Avenue—especially the thousands of motor-cars that make use of that great artery morning and afternoon.

The cost of these great improvements will be approximately

\$180,000,000. Such an expense could not have been undertaken for the sole purpose of building the terminal. The terminal itself never could have been made to pay interest on such a large investment of capital. The incurring of this expense, however, is made possible by the fact that there will be a large income from the rental of the buildings on the property. When this stupendous work is finished it will cover more than 20 city blocks. There will be 70 acres of tracks in the yards below the street level. Their total length will be about 32 miles.

This terminal marks a new era in the vertical building of railroads. Modern terminals in great cities must be below the street level hereafter. This has been made possible by the supplanting of steam by electricity. It had been made necessary by the high price of New York City real estate. The cost of producing the space for one car (exclusive of the cost of the station) is about \$30,000. The old high train shed that was designed to keep out the rain and allow almost as much room for the smoke as would be had under the open sky is now obsolete.

Throughout the entire terminal questions of ventilation have been of the first importance. On the concourses, along the incoming and outgoing tracks, particularly in those parts of the big station below the street level, it has been realised that there must be a supply of air that is perpetually clear and continually renewed. There are to be installed the most complete ventilating systems that have been devised to make this possible.

The new terminal will have four levels where the old had but one. The gallery on the grade of 42nd Street will be the top level. The next will be the concourse which is on the level of the 42 tracks that will handle the through trains. This will connect with the subway lines. On the third level will be the 25 tracks for the suburban trains, and underneath all these, running east and west, under 43rd and 45th streets, will be subways for handling the inbound and outbound luggage. Incidentally, this Grand Central point will be perhaps the greatest traffic centre in the world. Aside from the millions who will pass in and out of this great gateway, the Interborough and McAdoo subways, and others that will be built, the Belmont tunnel, and the surface and elevated lines will carry a multitude of people to or by its very doors.

Nowadays when passengers alight from a train they have to pass by several baggage and express cars on their way out. The arrangement in this great terminal obviates this and is unique. The incoming baggage will be unloaded beyond where the passengers leave the train. Before the baggage cars are reached the passengers will be on an inclined way which will carry them above the level of the baggage cars. There will be no dodging of trucks along the platforms, and no fear of trunks toppling

over one's head as one passes by. The outgoing baggage also will be brought by the subway under the tracks, and by elevators to a point opposite the cars in which it is to be loaded. The passengers need not see it at all.

Later on, too, when the extension of the McAdoo tunnel is completed to the Grand Central, passengers may go directly to it from their trains. Their baggage will be transferred through it across the river to the terminals along the Jersey shore. There will be direct connections also with at least two big hotels, so that the baggage of travellers may be whisked underground from the cars and reach the rooms as quickly as the guests.

Outgoing travellers need not go to the baggage-room at all to check their trunks even now. All they have to do, after buying their tickets, is to pass along to the next counter and turn over their tickets and their checks from the transfer company. These are sent by pneumatic tube to the baggage-room, where the trunks are checked and the trunk checks sent back. This new idea has been in operation in the Lexington Avenue terminal for the past fortnight.

The main features of the new Grand Central will be the outgoing station. This is always the principal part of every railroad terminal. People wait there longer than anywhere else. There will be two great waiting-rooms, one for the suburban traffic and the other for the through long-distance passengers. Each will be on the level of the tracks that it serves, and will be quite distinct from the other. These waiting-rooms are divorced from the traffic and hurrying crowds. Passengers need not go through them to get to their trains. The suburban and through passengers need never see each other or mix in going and coming. The ticket offices, the entrances and exits, and everything else are distinct and separate. This will be another unique feature of the terminal.

There will be two concourses, also, for these suburban and through passengers. Each will have its own ticket offices, information bureaus, baggage-checking places, parcel rooms, and all the facilities for travel. These concourses will be huge affairs. That for the inbound trains will hold comfortably 8,000 people, and the outbound 15,000. The waiting-rooms will be large enough to hold about 5,000 more. Nearly 30,000 in all, therefore, can gather in this enormous station without crowding one another.

Seventy thousand outbound passengers an hour is the capacity of this terminal. That is double the maximum carrying power of any passenger station in the world. Sixty thousand a day is the Grand Central's present average traffic. In the new terminal 200 trains may be sent out every hour if necessary.

The introduction of many novel and unique features has brought this about. Instead of trains coming in, discharging passengers, and backing out, as they do now, they continue on, when empty, around a loop. Owing to this arrangement it would be possible to keep practically one continuous train in motion. Assuming that there was another loop track somewhere to the northward, this continuous train might circle between here and Albany. Through the old Grand Central 21,000,000 passengers passed to and fro last year. Owing to the perfection of this new arrangement five times as many, or more than the whole population of the United States, can be handled just as easily in 12 months.

The network of the two storeys of tracks converges and narrows down to four parallel lines of steel at the entrance of the tunnel under Park Avenue. But the utility of these four tracks has been more than doubled. The "neck of the bottle" is no greater than before. It is the stream of trains that earn money that can be handled through it that has been increased. Under the old arrangement the empty passenger cars, when they had completed their journey, had to be hauled out through the tunnel to Mott Haven, and brought back again when they were cleaned. As the new terminal is planned, they will simply swing around the loop, when empty, and run over to the yards at one side below the street level, where they will be made ready for the next trip. During the morning-rush hours it will be possible to use three of the four tracks for incoming trains, and in the afternoon, when the tide of traffic sweeps northward, the conditions may be reversed. When the improvements are completed a train can be handled over each track every two minutes. This means that every 120 seconds three trains can pass in or out. All, of course, are handled by electricity. On the Harlem Division the electric zone now extends to White Plains. Along the Hudson River it runs to Yonkers, although the electrification is to be completed as far north as Harmon, 33 miles from New York.

Electrical operation is largely responsible for this remarkable facility in handling trains. Under steam it would not have been possible to run them around loops in such a restricted space. In steam service the maximum curvature is 15 or 16 degrees; in electricity it is 21 or 22. The capacity of the station will be so great that trains will not have to be turned so quickly and it will not be necessary to hurry people in and out of them as is the custom in all the great railroad terminals to-day.

Every known device to facilitate the movement of trains will be installed in this great terminal. For years the Central's experts have been studying and testing inventions, not only in this country, but in Europe. They have been going about all over this country and abroad hunting for new ideas. Everything that has been found practicable

has been adopted and is being put into use. An all-electric signal system has been installed. It is the only one of its kind in the United States, and is the latest and most perfect that ever has been devised.

One detail of it is that when the gate through which the passengers enter on the train platforms is closed, just before the train starts, its shutting is signalled electrically, not only upon the platform, but to the towers from which the movements of the train are controlled. Automatically all those concerned are notified that the train is ready to go out. The signal is given simultaneously clear up the main line so that the men in the distant towers there will know that the train is coming. This saves not only seconds but minutes over the old system which is in use on practically every other railroad in the world. The essence of it all is that every train must move on time to the second.

When the passengers arrive in one of the old-style steam terminals of to-day, they step out upon a platform in a lofty train shed where the air is filled with the clanging of bells and the roar of trains that echo thunderously. The transition of the traveller from the Pullman car or the day coach that has been his home for so many hours that every detail of its interior has become familiar, is startling to him. Even the most experienced travellers do not escape a certain feeling of trepidation at reaching their journey's end, even though they may have passed through the same big station before and know the road to the place where they have elected to stop.

This new terminal at the Grand Central is built on an entirely different plan. The essence of the idea that runs through all its designing and has been the subject of years of study on the part of the most expert men in America, is this: How to build a station so that John Smith or Mary Jones, who have never been in New York, can arrive at the Grand Central Terminal and pass through it to where he or she is going with the least possible confusion and the utmost tranquility and peace of mind. That is really the ideal that has to be sought after in the construction of a great railway terminal nowadays. The high, arched architecture of the railway stations had its genesis in the gate of the walled city years ago. It is the entrance by which all travellers arrive and depart. If their comings and goings be pleasant they will pass that way again. But the modern railroad station must be arranged so that the arriving passengers may not jostle those who are hurrying to catch their trains.

When passengers arrive at a modern railroad station below the street level, they must not feel as though they were stepping into a cellar. They emerge, perhaps, from a highly polished, mahogany-trimmed sleeper. Its roof is low and it has been their home for a day or a day and

a night or longer. When they end their journey at the new Grand Central Terminal, they will hardly mark the transition from the elegance of their temporary home on wheels. It will be like passing from one handsome apartment into the great corridor of another. The platforms will be on the same level as the floor of the car, and there will be no torn dress skirts or lacerated feelings that are the daily features of this transition nowadays. The great corridor upon which the passengers enter will be softly lighted. Its ceilings will be low, and its walls will be coloured in restful tones. There will be no confusion. At most only one other train or track will be in sight. The vista down which they walk will be pleasing to the eye, and will seem like one big, long room. From there they will pass out into the "kissing gallery." That is what the railroad people call the place where the people wait to meet incoming travellers. In this "kissing gallery" there will be room for double lines of people, each 100 feet long—plenty of space and no confusion for the welcomers. There will be three of these "kissing galleries," which ought to be ample even when travel is heavy. The track on which each train arrives will be announced so that there will be no trouble in getting in to the right "kissing gallery."

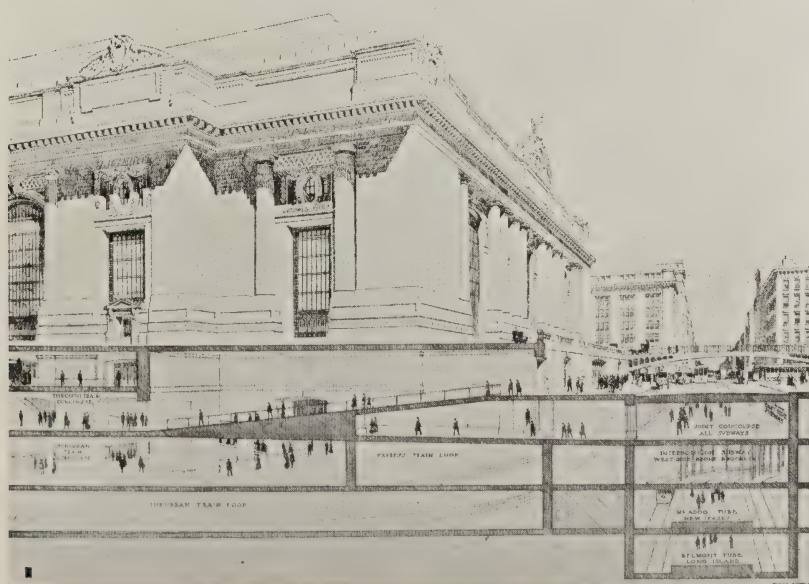
Another carefully considered thing in the construction of this terminal is the elimination of stairways. Wherever possible, gently sloping inclines take the place of steps. An incline is better than a stairway because it is easier for everybody, particularly so for the very young or the very old. Even the middle-aged man or woman finds it more comfortable.

All these inclined ways are located in direct lines of traffic so that the immense crowd that moves to and fro will never have to turn any corners or to turn round and go back. In other words, to handle the millions that will sweep back and forth through this gateway, everything is arranged to avoid all possible friction or confusion. It will not be necessary to teach people where they should go; they will naturally move in the right direction. That is the main thing to be looked after in handling a big crowd day after day.

The exits and the entrances to this stupendous gateway have been planned with the same care. Primarily it was assumed that on some rush occasions the crowd might spread out hesitating for 100 feet on the sidewalk on each side of an entrance. That was the basis of calculation in planning the entrances and exits. There are 12 of these. The nearest are 100 feet and the farthest 900 feet apart. The architects regretfully say that they may have sacrificed several grand architectural ideas in the location of these entrances and exits, but they are sure they



Waiting Room



Section across 42nd Street
GRAND CENTRAL STATION, NEW YORK

have absolutely eliminated all the possibility of crushing and crowding, either coming or going.

When all the great buildings that will cover the surface of this huge terminal are completed they will form one of the most wonderfully beautiful groups of structures in the world. In developing the property along Park Avenue the buildings will be confined to those of what is called a monumental character, similar in design to those that the railroad had put up already on Lexington Avenue. In this section of New York, at least, there will be a level sky line, like that which is so much admired in the cities of Europe. On Lexington and Madison Avenues the foundations are arranged for buildings of greater height. The station building proper—the “head house” the railroad men call it—will be bounded by Depew Place, 42nd Street, Vanderbilt Avenue, and 45th Street. The southerly and westerly faces will be set back from 42nd Street and Vanderbilt Avenue so as to provide a wide plaza in front of the portion of the building where passengers will enter and depart. Provision has been made so that this building can be carried up 20 storeys above the station.

As an illustration of how carefully a single and seemingly unimportant detail has to be considered may be mentioned the little matter of selecting the colour for the uniforms of the employés of the terminal. To the hurried traveller every man who wears a brass-buttoned uniform, or even a cap, is a railroad employé. Coming and going continually in the station are innumerable uniformed persons from the big hotels in the neighbourhood, messengers, porters, and the like. It happens frequently every day that some perturbed traveller will rush up to one of these and ask a question about the arrival or departure of a train. Nine times out of 10 the man in uniform will be unable to answer correctly, if at all, and the traveller will blame the railroad for the ignorance of its servants.

So as to obviate this a great deal of time and study has been devoted to trying to find a colour for a uniform that will make the railroad's men in the terminal easily distinguishable and be entirely different from anything else in use. At the first glance this would seem easy. A brilliant green, for instance, would seem to answer the purpose. But there is one insurmountable objection to this or to any other gaudy hue—it would be hard to get employés to wear it. Therefore a quieter and yet distinctive shade must be chosen—something that will not subject the wearer to ridicule and yet will be different from anything else. The New York Central people have been wrestling with this little problem for several months and have not solved it yet.

In a thousand-and-one ways the new Grand Central is going to be of

enormous use to even casual travellers. For instance, there will be a lot of little dressing-rooms. These will be rented for a nominal sum, and a man can go into one of them and change into his dress clothes without hiring a room in an hotel. For women the same facilities are to be offered. There will be dressing-rooms for them, too. In these they can change their travelling gowns for more elaborate costumes. There is to be a rest room with medical attendance. This will be centrally placed, so that a person can be taken or can go there conveniently and by many different ways. There will be no lack of nurses for those taken suddenly ill, and if necessary a sufferer can be carried out to an ambulance without being seen by other people.

Yet another big and important feature is the special accommodation to be provided for immigrants and gangs of labourers. These can be brought into the station and enter a separate room without coming into contact with other travellers. Special attendants will be detailed to them.

The most wonderful thing about the building of this great terminal is that it was carried on without stopping or delaying for a moment the movement of nearly 2,000,000 passengers a month. The taking down of the old train shed over the heads of these millions of people, without injuring a single one of them, was a unique engineering feat in itself. Also there was the excavating of practically 3,000,000 cart loads of rock and earth, the abandoning of one track after another as soon as a new one was ready to take its place, all without interfering with the daily movement of hundreds of trains.

Probably more engineers from all over the world have viewed the progress of this work than have taken the journey to see the Panama Canal. One of the foremost engineers of Germany said that he would not have dared to undertake it, and would have advised the abandoning of the old terminal entirely while a new one was being built. He would have considered it better to land the passengers somewhere in the northern part of the city. It was only by the employment of the highest order of operating skill that construction and operation have been made to work harmoniously, and in this, the age of industrial wonders and of great undertakings, all this gigantic work went on so quietly that a great many people of the metropolis have hardly been aware of it.

It might be imagined that such a colossal task as this would be overshadowed by some great guiding spirit who would outline and be responsible for it all. This, however, is not the case. A work of this magnitude could be accomplished only by a large collection of men, of different kinds of experience, training, and ability. It has been conducted by the New York Central under a joint agreement with the New Haven

Company, the presidents of these two companies being the court of final report in the approval of plans. To these men report the vice-president of each of the railroads. These vice-presidents are directly responsible for the design and conduct of the work. They are assisted by a joint committee, presided over by the Terminal manager, consisting of three representatives of each of the railroads, who make recommendations and to whom all general plans are submitted by the engineers and architects. The architects in charge of the design of the buildings consist of the associated firms of Reed & Stem and Warren & Wetmore. They are presided over by an executive who is one of the members of the firm. Reporting to the executive of the architects are numerous designers and draughtsmen, who prepare all the building plans and specify the character of the materials to go into the buildings. The engineering organisation has charge of the design of the terminal yards including the substructure of the buildings and the procedure and business of the contracts for the building. This organisation is presided over by a chief engineer to whom report a terminal engineer, in charge of the forces doing the construction work, a terminal engineer in charge of the design of the work and engineering execution to both the yard and buildings, and an engineer of structures in charge of the designs and fabrications of the steel. The terminal manager has a night and day superintendent, to whom report general foremen, master mechanics, the power-house superintendent, yard-master, &c., all engaged in the manual labour of construction. The terminal engineer has reporting to him a designing engineer in charge of the designs, a first assistant engineer in charge of all field work in connection with the terminal, and an assistant engineer in charge of the buildings. To these report the various assistant engineers, draughtsmen, field men, &c., necessary for carrying out the engineering portions of the work. The heads of the departments mentioned above, together with those engaged in the electric zone improvement work, meet each week with the chief engineer. Then the entire programme is reviewed, and all the troubles and questions of design and procedure are brought up for consideration. These weekly meetings keep the men in charge of all the more important details in touch with the many difficult problems, and enable the entire strength of the organisation to be brought to bear upon them. The conclusions reached at these meetings are presented to the committee, of which the terminal manager is chairman, for final action.

Just as in the Panama Canal, or any other enormous work, careful unit costs are kept by the construction organisation. The primary purpose of this is to keep the officials of the company advised as the work progresses. The greatest value of these statistics, however, is in their

effect on the efficiency of the construction forces. By this method the excavation cost on rock has been reduced steadily since the work was started. The efficiency of the big steam shovels has been increased from 17 cars for each shift to an average of $22\frac{1}{2}$, and so on.

To those who like figures, the following statistics will be of interest: The total area of the old terminal was 23 acres; that of the new will be 76 acres, or an increase of about 230 per cent. The old terminal had a capacity of 366 cars, the capacity of the new will be 1,149 cars.

The station building proper will be 600 feet on the street level, 300 feet wide, and 105 feet high. Below the street level it will be 745 feet long, 480 feet wide, and 45 feet deep. Eighty-five thousand tons of steel will be used in the construction of the new terminal.

The main concourse will be entered from 42nd Street. It will be 120 feet wide and 100 feet high. The floor level will be about 10 feet below the grade of 42nd Street. It connects only with out-bound trains. The arriving concourses will be on the easterly side of the building. On the suburban track level will be another concourse. Each will have independent exits and entrances.

ROBERT ANDERSON POPE.

REVIEWS OF CURRENT PERIODICALS AND NEW BOOKS

Notes on the Magazines

Städte-bau

The March number contains an interesting article on overhead street railways, with illustrations of the New York and Brooklyn examples, and three different types from Berlin, including the experimental portion with a single central shaft which has been erected in the Brunnen strasse.

In the same number are contained the building plans for the small Town of Passau—St. Nicola, by Herr Franz Geiger, of Munich ; he was placed first in a recent competition.

Architectural Record (America)

The February number opens with an important article by Professor Adshead on a Comparison of Modern American Architecture with that of European Cities. The article compresses European phases of architecture since the Renaissance into a few short generalisations, and compares it with the recent work of such men as McKim, Carrere, and Hastings, &c.

Another article (also drawn from England) gives a series of some extraordinarily picturesque examples of cottages and gardens—none of them, however, capable of furnishing much help to the modern designer of small houses.

The series of articles on American Universities is continued by notes on four smaller examples—Brown, Bowdoin, Trinity, and Wesleyan. The recent buildings in these Universities are fine examples of Academic architecture.

Landscape Architecture (America)

Our quarterly contemporary for January—its second number—contains an interesting article on Boston, by Mr. A. A. Shurtleff. It is an amplification of a portion of his contribution to the Boston Metropolitan Commission's Report.

Mr. Olmsted's notes on the sizes of steps required for comfort are so minute and scientific as to be bewildering. His three diagrams, extraordinarily thorough as they are, are worthy of a larger subject.

The number also contains some suggestions for the grouping of certain flowering plants, and a long article on the course of Landscape Architecture at Harvard, by Mr. James Sturgis Pray.

The Builder

The monthly Review of Civic Design for April 7th is largely occupied with a description of the Bolton Scheme (see Chronicle, page 74), and we heartily agree with *The Builder's* opening remark, that "a new era in the development of our cities has been marked by the proposal of Mr. W. H. Lever to initiate a scheme for remodelling Bolton . . ." It is the scale on which this scheme is conceived that marks the "new era."

The Municipal Journal

April 8th contains an interesting article on the new County Borough of Eastbourne. Like Southport, it is largely a City of trees. The growth of Eastbourne has been very sudden: in 1861 its population was 5,795 while in the present year it is over 50,000.

Co-partnership

The April number is largely concerned with illustrating the King's visit to Hampstead in company with the Queen. It also illustrates the first pair of houses to be erected at the Liverpool co-partnership suburb.

We note that Mr. Litchfield, the Secretary of the Co-partnership Tenants Ltd., has become a member of the Board. He is succeeded as Secretary by Mr. George Morriss, formerly Secretary of the Labour Co-partnership Association.

Garden Cities and Town Planning

The first number of the new series of this, the oldest of the magazines devoted to the Garden City movement, appeared in February. It is a great improvement on the old magazine, and contains many valuable articles. In the First Step in the City Survey, Professor Patrick Geddes still keeps before our eyes that most important rule—study before you plan. We feel that this cannot be too frequently insisted upon.

The March number contains the plan of the Jesmond Park Estate, Rochdale, as one of the first examples of a Town Planning scheme promoted by the owner, Mr. S. Smethurst, J.P. The Corporation, in spite of being in favour of the scheme, could not grant the necessary relaxation of the Bye-laws. The delays unavoidably caused by this application to the L. G. B. are not an inducement to owners to develop their property on rational lines, where Bye-laws cannot be relaxed; and suggests, as we recommended some time ago, another method by which the special use of Bye-laws obtained by Hampstead could be put into operation elsewhere, in return for definite advantages. Or, as suggested in the article

describing this estate, a more simplified set of Regulations might be arranged "governing the procedure in the case of a scheme submitted by a single owner, when much of the procedure necessary for a large scheme, in which many outside interests are involved, appears unnecessary."

The Housing World

The March number contains the plans for and an account of the Garden Village at Carshalton. The scheme will preserve, as a central feature of a Park, the old canalised watercourse forming one of the sources of the River Wandle.

Housing, Town Planning, and Architecture

This new publication, which appeared on March 4th, is a separately-printed supplement to the L. G. O. It promises to be of great value in its "News from all parts," which are evidently in touch with a wide circle. This increase in the number of magazines, large and small, devoted to various aspects of Town Planning, is a certain sign of a growing intelligent interest in the subject on the part of the public.

The American City

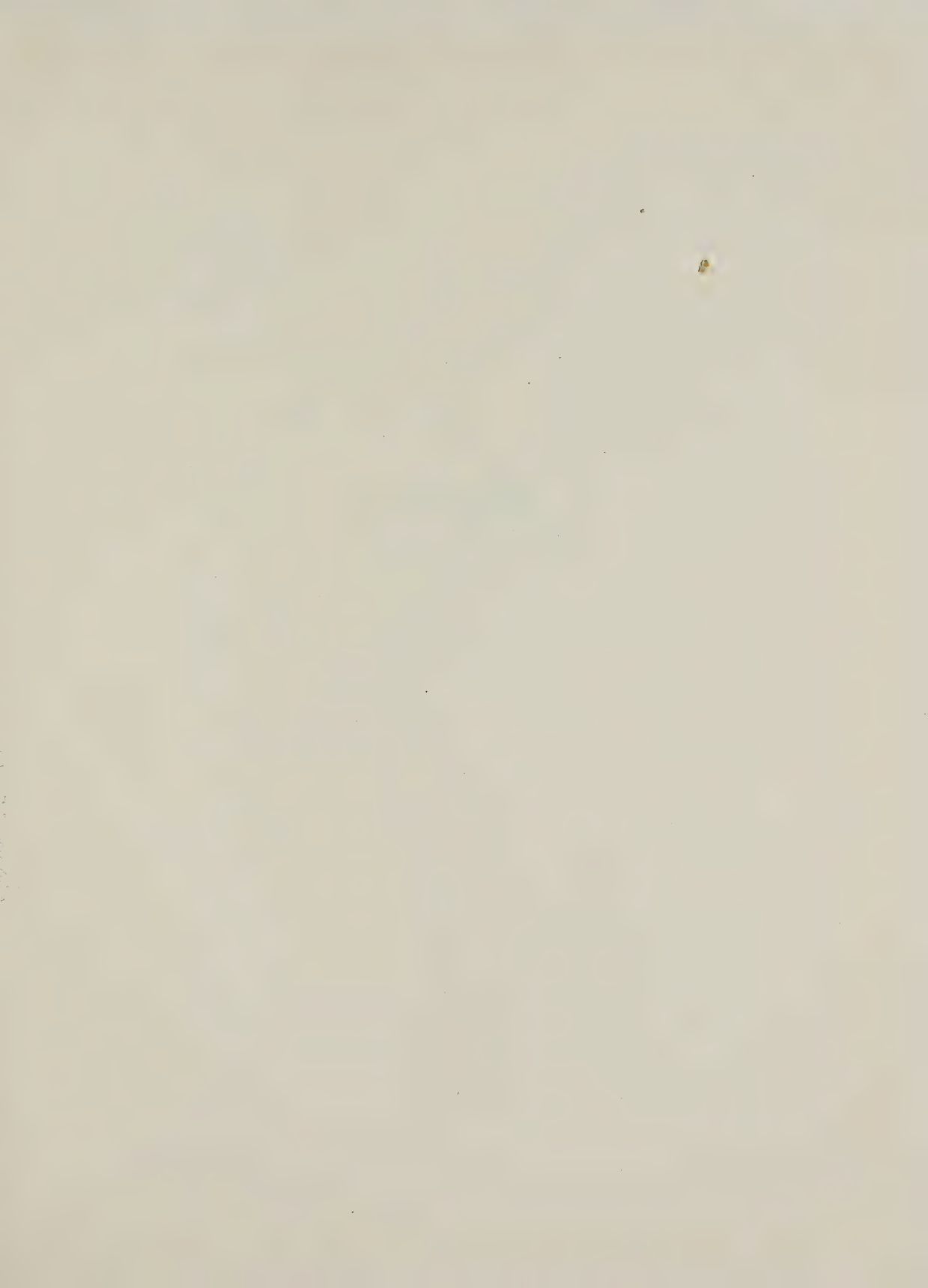
The March number opens with an article on the City of Williamsport, Penn., an interesting example of a city whose sole industry, that of Lumber, gradually passed away, the lowest point being reached so recently as 1900; but through the indomitable nature of its citizens, it has re-erected itself as a manufacturing town, and appears likely to go ahead without check.

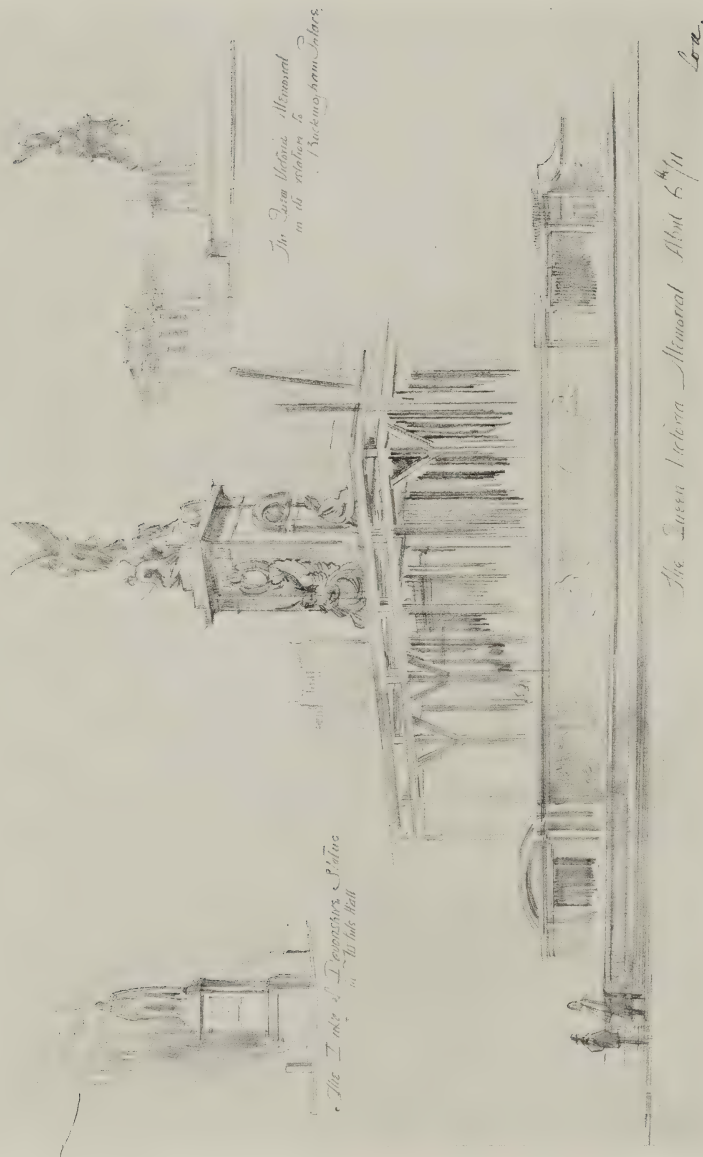
Catalogue of the Cities and Town Planning Exhibition at Edinburgh

We have received the Catalogue of Professor Geddes' Exhibition, which has been taken from the Crosby Hall, London, to the Galleries of the Royal Scottish Academy. This catalogue, besides the ordinary list of exhibits contains some valuable Sociological Philosophy in connection with the Edinburgh Survey. The Catalogue is divided into three parts: Part I. is a general outline for a first visit—in fact, an ordinary Exhibition Catalogue. The second part is not a Catalogue, but contains "Aids to further study," utilising only certain of the exhibits, and containing much valuable and reflective writing. The third part, summary, and conclusion, is largely of local application—it brings the whole exhibition home to Edinburgh, and is instinct with Professor Geddes' place-patriotism and civic-enthusiasm.

*Birmingham Report of the Ninth International Housing Congress,
Vienna, 1910*

This report, issued by the Housing Committee, contains the text of all papers read at the Congress (translated). It also contains a valuable description of the tour which the British delegates made under the organisation of the National Housing Reform and Town Planning Council. Useful notes are thus published on Paris, Ulm, Vienna, Dresden, and Berlin, the interest naturally centring on the Housing aspect of the subject. A considerable amount of the information was personally collected by the three delegates—Mr. W. E. Lovsey, Chairman of the Housing Committee ; Dr. Pooler ; and Mr. W. S. Body, Committee Clerk. The general conclusion is one which we have held for some time—that we have little to learn as regards pure Housing from Continental Cities.





QUEEN VICTORIA MEMORIAL, LONDON
DUKE OF DEVONSHIRE STATUE, WHITEHALL

CHRONICLE OF PASSING EVENTS

The Queen Victoria Memorial, London

The demolition of the scaffolding around the Queen Victoria Memorial in front of Buckingham Palace is rapidly proceeding, and enough of the work is now revealed to justify criticism.

The gilded sculpture and white marble pedestal of the upper part, seen in brilliant sunlight against the deep blue of an April sky and in contrast with the sombre blackness of the Palace, is certainly very inspiring. This much has real architectural worth. It is early as yet to criticise the memorial as a whole, but the lower portion is extremely disappointing, and the monument can never look so well as when half hidden in scaffold in our sketch. The relief work on the base is misplaced. Such relief work should only be carved on the most solid of masonry and not on a parapet wall; indeed, this portion of the ensemble lacks vigour and that freedom of modelling which we may rightly expect in such a position.

From the point of view of the sculptor the monument may be regarded as a success. But to the architect and town planner, whose eye, whilst resting on the climax, takes in the surroundings at the same time, vexed questions will arise. Which is ultimately intended to be the climax of the Mall—the memorial or the palace of the King? Obviously the monument will predominate, and there can be no great portico or central feature to the palace when it comes to be redesigned. One would have thought that in this position the monument would need be no more than a vistral accentuation in the Mall. We can imagine the distress of the palace architect in his endeavour to design the centre of his facade so as adequately to make of it a fitting termination of the Mall.

The King Edward Memorial, London

We are pleased to see that the King Edward Memorial Committee, London, have decided to abandon the destruction of St. James' Park. The moderate speech of the Lord Mayor at their meeting of April 7th should interest the Liverpool Memorial Committee, who have been less inclined to be amenable to the popular will. London is not Paris, and a scheme like that proposed for St. James' Park, which means the imposition of a formal scheme (too limited in extent) upon what is admittedly a most beautiful landscape effect could only result in the failure of the bridge and the destruction of the park.

The Proposed St. Paul's Bridge over the Thames

Nothing illustrates the wickedness of admitting the existence of city boundaries when a town-planning scheme is at stake like the dispute over the position of the St. Paul's Bridge. It comes within the boundaries of the City of London, and here the County Council has no jurisdiction.

The City Fathers control the situation because it is to be paid for out of the funds of the Bridge House Trustees, over which they preside. They contend that it is their affair and theirs alone. The contention of the Royal Institute of British Architects, who are nominally supported by the London County Council representing London as a whole, is that it is a matter that affects economically the whole of the Metropolis and architecturally the nation.

The City man wants his bridge to take him to his destination in a bee line, but resenting the taunt of lack of imagination he raises objection to its divergence and to its being made an architectural scheme on the ground of unnecessary cost. He sees no justification in incurring the expense

of having to demolish a fine strong warehouse merely to get a vista terminating in the dome of St. Paul's.

The cause of the architects has been ably championed by their president, Mr. Leonard Stokes, but the so-called honour of the City is at stake. The City has spoken.

Cannot the County Council, supported by the Government morally and assisted financially, find the additional funds necessary to make the new bridge a great national town-planning scheme?

The Duke of Devonshire Statue

The statue erected to the Duke of Devonshire at the entrance to Horse Guards Avenue in Whitehall is a very harmless and ordinary piece of work. It is to be regretted that when the War Office was erected this street was not re-set out so as to centre with the Horse Guards entrance. It now comes very awkwardly to one side.

The Duchy of Cornwall Estate

There can be no doubt but that the proposed rebuilding of the property belonging to the Duchy of Cornwall situated at Kennington will give a great impetus to town planning in this country. It is a fortunate circumstance that the King, or rather his eldest son, for whom his father acts until he is of age, should be a property owner in the Metropolis, and it is a natural circumstance that he should aim at showing other property owners in the Metropolis and throughout the country the right way to deal with old and worn-out housing conditions. At present we have no details of the scheme, but the following is the official statement which has been authorised:—

“ March, 1911.

“ At the recent meeting of the Council of His Royal Highness the Prince of Wales, at which His Majesty the King presided, a scheme for the rebuilding of the Duchy of Cornwall Estate at Kennington was under consideration. The estate

has suffered in the past from the practice which prevailed in the first half of the 19th century of granting small plots of land on leases for terms of three lives. The system was happily ended by the Prince Consort, but many of the old leases are still outstanding, and the property till recently was so interspersed with houses held on this precarious tenure that it has not been possible for any comprehensive scheme for dealing with the estate as a whole to be carried into effect. Efforts, however, have been made whenever sufficient space was at disposal to improve the housing accommodation by the erection of improved dwellings for the working classes, the control of which has been retained by the Duchy authorities.

“ In March, 1910, after a number of old leases had expired, His Majesty, as Prince of Wales, commissioned Mr. S. D. Adshead, Professor of Town Planning at Liverpool University, to report on the condition of the property, and to make suggestions for its improvement. This scheme, which was considered at a meeting of the Council on Monday, practically involves the entire reconstruction of the older property. The proposal is to build improved cottages and small seven and eight roomed houses of two storeys over the greater portion of the estate. Apart from a small number of three-storeyed dwellings, consisting of tenements of two rooms with bathroom, for old tenants, and superior flats facing the Oval Cricket Ground, the erection of block dwellings is not contemplated.

“ His Majesty is anxious that a model and up-to-date estate shall take the place of the old and worn-out property as speedily as possible. The new scheme will be carried out in a progressive spirit, with due consideration for the interests of the present tenants.”

The important feature of this statement from the town-planning point of view, is that instead of rebuilding on the ordinary lines, house by house or even street by street, the property is to be considered as a whole and in relation to its surroundings;

to ensure this being done, the report has been entrusted to an expert on town planning, so that in place of some model cottages and flats we shall have a model London estate which shall act as an object-lesson of the benefits resulting from comprehensive foresight.

The following extract from the *Morning Post* of March 18th gives some idea of the value of this action from the point of view of the general public :—

“The novel value of yesterday’s statement lies in the fact that His Majesty has given, in a very practical manner, an effective approval to the latest ideas of town planning, and the Council over which he presides has called in an expert to prepare schemes for the property as a whole. Town planning is still in its infancy, and though progress is being made with extensive schemes the general public and the local authorities, which reflect so accurately its opinions and its prejudices, are not fully disabused of the idea that town planning is a fad. It is still not uncommon to find garden suburbs and all town-planning schemes associated with advanced views on diet and ethics. The fact that Mr. Adshead, the distinguished expert who has been consulted for the Duchy of Cornwall, is also Professor of Town Planning in Liverpool, will drive into the minds of the most obtuse and preoccupied of the public the knowledge that a new art, expressing a new ideal, has arisen. The architect is no longer to be considered as the servant of each private individual, but rather as master of the community in all that relates to the building of cities. Every intelligent citizen is disgusted with the form and design of the cities that pitifully represent the triumphs of civilisation. But habit has inured the great masses of the town-bred people in the mean houses and undistinguished streets that go acre after acre to form a great city. They have no better idea because they have no standard of comparison by which to condemn the present reality. It requires leadership to stir them to aspiration.

That leadership can be given best by the great landlords. On them rests a responsibility of giving practical shape to the theories and the dreams of reformers.

“The duty of leading in social reform has been strikingly enforced on landlords by this action of His Majesty. It is a singularly fortunate accident that at this moment the Duchy of Cornwall should have come into control of some of its worst property.

“The estate comprises about 17 acres, but it is divided up into six plots, of which two are quite small. There is considerable scope for the improvement of traffic facilities in several places, and these will doubtless have been considered as well as the housing question.

“The subsequent visit of the King to the Hampstead Garden Suburb is a further instance of the personal interest which His Majesty takes in this subject.”

The First Stage in the Town Planning Act

The preliminary application for permission to prepare town-planning schemes for the first three areas has been acceded to by the Local Government Board. These are Ruislip-Northwood with an area of 5,906 acres, West Birmingham with an area of 2,320 acres, and East Birmingham with an area of 1,442 acres. Now that these three pioneer estates have gone through the first stage, we shall expect to hear of a great many followers, as the imagined difficulties of the procedure of the Act are found to be capable of circumvention. We shall look forward to the second stage of these pioneer schemes, and it is to be hoped that they will again lay before the country their experience for the benefit of those who wish to follow.

Sheffield: The Future Extension of its Suburbs

On March 9th, Mr. Edward M. Gibbs, F.R.I.B.A., architect, of Sheffield, read a paper before the Sheffield Society of

Architects, in which he reviewed in a comprehensive way the existing conditions of Sheffield in relation to the surroundings, and brought forward some tentative proposals for consideration as a basis for the preparation of a town-planning scheme to be authorised under the Act of 1909. The main contention of Mr. Gibbs' valuable paper is that in only one way can Sheffield be approached with reference to the Town Planning Act, and that is as a whole city and not as a collection of suburbs to be treated separately. The Town Planning Committee already appointed has selected two suburbs as suitable for schemes. "But the Act," says Mr. Gibbs, "is almost as equally applicable to other suburbs. If applied to these two suburbs it will probably check the building operations in these areas and lead to increased immediate building in other suburbs which are free from restriction, and which might be only separated by a width of a road from the prescribed suburbs. In short, it will not stamp out the disease (of ill-considered and crowded development), but only remove its locality.

"Incidentally, it will be unjust to owners of land in the two suburbs, as it will put upon them restrictions, from which their competitors in other suburbs are free, and yet as ratepayers they will have to pay their share of the cost of the preparation and approval of a scheme which makes these restrictions. Not that restrictions are necessarily harmful if applied to the whole of the suburbs at the same time. Indeed, as I will show hereafter, they may be beneficial to all the owners if applied judiciously and concurrently."

Finally, in view of the rapid increase of population in Sheffield, Mr. Gibbs suggests that the town-planning scheme should include not only the whole of the suburbs, but the whole area within the city boundaries, and that this should apply to land now in course of development as well as land at present outside developed parts. It is also evident that the scheme would be more complete if certain parts of the

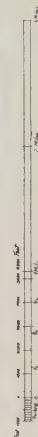
adjoining districts were included, but as this might delay the adoption of a scheme, it is advisable at present to keep within the city boundaries. When it is realised that the area of the city is 23,662 acres and the built-up portion of it approximately 7,887 acres, the magnitude of Mr. Gibbs' proposed scheme will be realised. Something over 15,000 acres remains to be dealt with as "land which is in course of development or appears likely to be used for building purposes." The practical difficulties incidental to this huge area are at once apparent, unless, as we believe to be the case, the ownership is in the hands of a few (a fortunate circumstance where town planning under the present requirements of the Act is contemplated). But as Mr. Gibbs sums up the situation: "A comprehensive scheme is desirable not only for the reason above mentioned, but also that the due relation of part to part, and of each part to the whole, may be duly considered; that main roads may be the most convenient and sufficient from the centre of the city to each suburb; and that the intercommunication from suburb to suburb may be provided for. The scheme should be designed as a whole, and carried out as and when required. If some parts are never carried out, no harm will have been done by merely planning them, and very little expense incurred in the plan, but if any part be omitted it may attract undesirable building."

Apart from this main contention, which is more fully substantiated by statistics, Mr. Gibbs' paper deals with two aspects: firstly, general data on the existing city and an historical retrospect of its growth; and secondly, some tentative proposals for a general town plan with a separate description of each probable extension. There is further an appendix on road construction and grading, also on the effect upon land values and charges for ground rent, of the limitation of houses per acre, and other restrictions likely to be imposed by a town-planning scheme, and

x x x x x CITY BOUNDARY RIVER WATER HILL OLD ROAD OLD CROSSROAD RAILWAY OLD PARK TEAM TERMINUS TEAM STATION PLANNING SITES FOR WORKS NEW ROAD WIDENED ROAD NEW PARK CENTRE



LECTURE ON TOWN PLANNING
 BY EDWARD M. GIBBS
 9th MARCH 1911



MR. GIBBS' SURVEY
 SHEFFIELD

on the probable cost to the city of the scheme.

It will be seen from the above brief summary that Mr. Gibbs has presented his city with a very valuable report, comparable, though frankly only dealing in generalities and confined to future developments, with many of the American Improvement Reports. It forms a basis upon which to construct a complete city plan, and its tentative proposals are evidently the work of one thoroughly conversant with local requirements. The maps with which the paper is illustrated are also of great value; the first gives the town and its surroundings as it is; the second shows its successive growths; the third emphasizes its main routes, tram, train, and road, and industrial areas; the fourth is an ideal plan of the arrangement of roads for a town; and the fifth embodies Mr. Gibbs' tentative proposals relating to the town as a whole and dealing with three main aspects—road communication and widening, industrial areas, and park provision.

The irregular nature of the surroundings of Sheffield is admirably indicated by wedge-shaped shading lines, outlining the contour lines up to the 400-foot level and the 800-foot level. This clearly shows the interesting situation of the city in the valley of the River Sheaf; on the west a series of long, narrow valleys penetrate into the moors, five points of which project in bold hills towards the centre of the town. Further west, but still within the city boundary, the contour rises to 1,350 feet. On the east the ground is more irregularly cut up, but the altitudes are less; two hills, Norton and Intake, rise to over 600 feet on the south-east, within the boundary. On the north again the ground is very broken, the average of the highest parts being about 400 feet. With such violent irregularity of level, any formality of street design is manifestly impossible, but still the ideal diagram which Mr. Gibbs keeps in his mind's eye, as it were, is of great service as reminding

one of the general requirements of a road system.

In submitting his tentative proposal Mr. Gibbs is careful to point out that he has suggested roads on private estates without first consulting either the owners or their surveyors. "I have," he says, "thought it best to take a broad and unprejudiced view, and to trust to the owners and their surveyors, recognising that I had no wish to dictate to them or to injuriously affect private interests, but that the proposals shall be taken, or the merest suggestions that are submitted, only as the basis for the evolution of a fully considered scheme of town planning, by conference of the owners with the Town Planning Committee."

These road proposals include the widening of several of the main existing radial roads, which, as might be expected, naturally follow the lines of the bottoms of the valleys. An irregular ring road connecting the suburbs is suggested, also a part of an outer ring road on the south.

The new parks which are suggested follow the lines of the existing Endcliffe Park, *i.e.*, taking the strips of low-lying ground along the streams, with their wooded banks. In this way six river valleys are indicated as desirable. The extent of these new parks would be about 928 acres or about 6 per cent. of the as yet undeveloped part of the city; the proportionate area of existing parks to existing city is $6\frac{1}{2}$ per cent. We would suggest, therefore, that Mr. Gibbs' park provision does not err on the side of extravagance. He, in fact, has indicated the essential sites to be preserved at all hazard; other large areas would be added as ordinary parks and recreation grounds.

Finally, the ground available for works is very limited. The natural situation for them—the lower valley of the Don on the north-east of the city—is nearly all appropriated, though not all built upon, and there remains only about 165 acres which are without the city boundary between Sheffield and Rotherham. Other

suggested sites are without the city boundary.

The total land available for works as above described is about 432 acres, which is only about $2\frac{2}{3}$ per cent. of the undeveloped land in the city, compared with 734 acres of existing heavy works, 10 per cent. of the land already developed.

This shortage of land for works is a very serious disadvantage to the city. It will, however, be possible for manufacturers to provide sites for works by the purchase and pulling down of cottage property in the valleys, but this will be costly, unless in course of time the workmen take advantage of cheap tram fares and remove from the congested and depressing districts near the works for pleasanter and healthier houses in the suburbs.

We think that we have indicated the comprehensive nature of this study of Sheffield, and we must congratulate the city for having had so able a report presented them. It will be of interest to watch whether Mr. Gibbs' main contention is taken up, which would have the effect of making the present Town Planning Act afford the possibility of a complete town plan as understood in relation to German cities, *e.g.*, the recent competition for Greater Boston and the 1892 Town Plan of Vienna.

Bolton : Suggested Remodelling of its Central Area

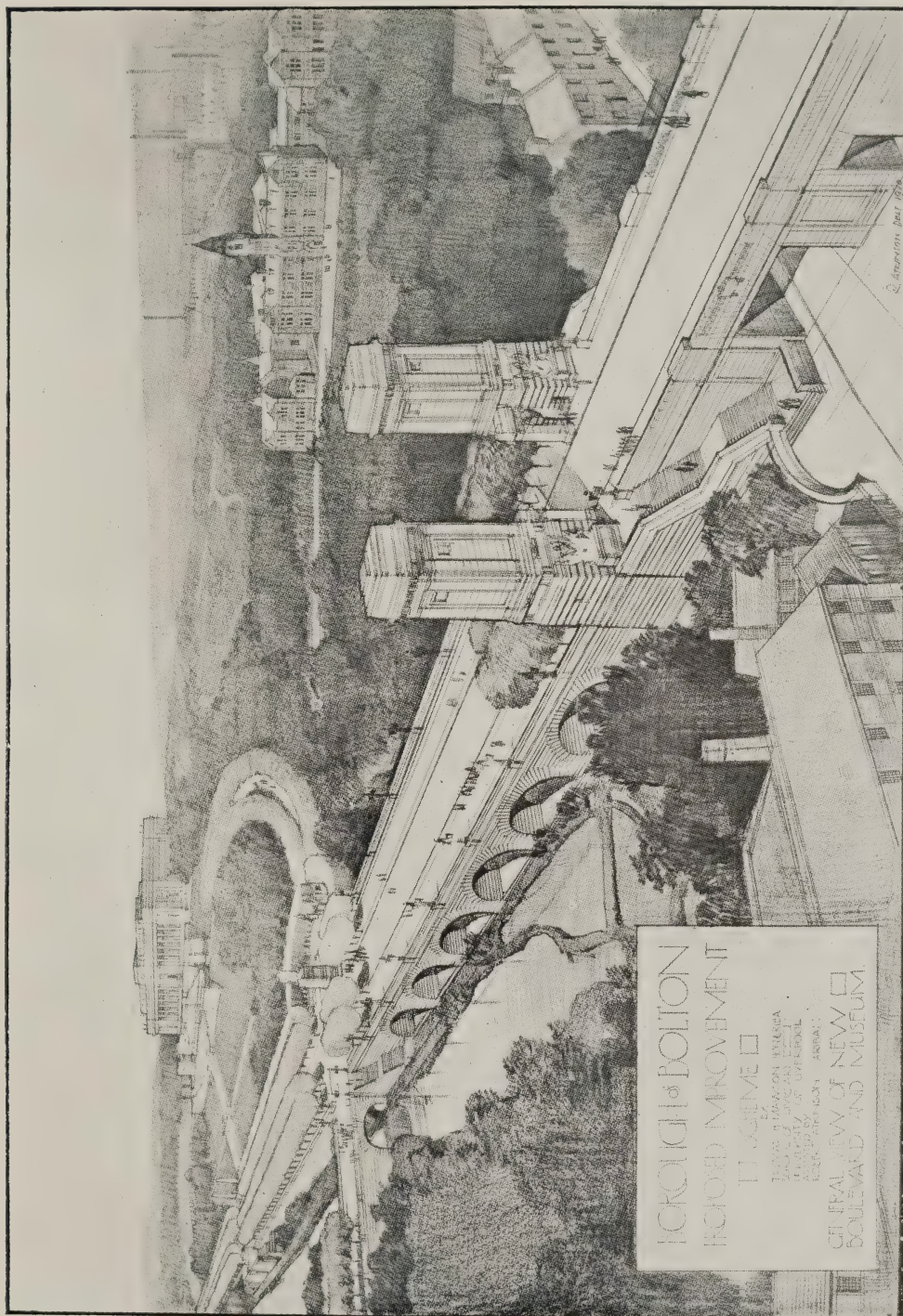
The scheme for Bolton which has been published in a charming monograph by Mr. Thomas Mawson in collaboration with Mr. Robert Atkinson, A.R.I.B.A., owes its inception to certain rough suggestions pencilled on Ordnance sheets by Mr. W. H. Lever, and handed to Mr. Mawson to work out and elaborate. These suggestions show Mr. Lever in a new light : he is already well known as a pioneer of Garden Village planning in this country, and we find him here acting as a pioneer of English monumental city planning of a type which has hardly been practised in this country for a century. Briefly put, the scheme is to

connect three important features of the town—the Parish Church, the Town Hall, and the Queens Park. In general, when suggestions of this kind are made in this country, they are received with good-humoured contempt ; in the case of Bolton, they would appear to be singularly feasible. The most striking idea, perhaps, is the Causeway, a broad Boulevard to be carried across the Park at the base of a steep slope to the South ; by means of a very short connective piece bridging over an existing street, this gives direct junction between the centre of the town on the one hand and an existing road leading out through the cemetery into the open country on the other. A piece of practical and monumental planning so simple that it is amazing that it was not thought of before. On Plate 39 the Pylons indicate the point at which the Causeway narrows down to form the connecting link with the centre. A crescent road connects the Causeway with the Town Hall Square and further by the suggested church avenue with the Parish Church. This produces a fine piece of vista planning.

To return to the Causeway. Besides forming the principal promenade of the town and also a new and direct route for pedestrians and bicyclists out into the country, it will also serve as the base for the finest civic composition which Bolton will have to show ; a terraced piece of formal gardening with a fine central flight of steps flanked by two curved sweeps will lead up to a proposed Art Gallery and Museum on the highest point of the Park.

These may be dreams, but we have a strong presentiment that in this case they may be realised. In spite of being a manufacturing town, Bolton possesses splendid opportunities, and, fortunately, the existing monuments, such as the Town Hall and Parish Church, are exceedingly fine, and the contour and planting of Queens Park are equally potential.

Mr. Mawson is greatly to be congratulated on the fine study which he has produced, and Mr. Robert Atkinson for



PROPOSED CAUSEWAY AND MUSEUM

BOLTON



SUGGESTED AREA FOR TOWN PLANNING SCHEME: EXISTING ROADS BLACK

HIPPERHOLME

his beautiful pencil sketches and fine architectural conceptions.

Hipperholme

We have great pleasure in publishing a preliminary scheme which the Urban District Council of Hipperholme, near Bradford, have prepared as a general basis upon which to apply for an authority to prepare a scheme under the Act. The area shown on Plate 40 represents about one-quarter of the whole district, which is bounded on the east by the city of Bradford, on the south by the manufacturing town of Brighouse, on the west by the County Borough of Halifax, and on the north by a small urban district and a parish of the Rural District of Halifax. The area which it is proposed to treat has a main trunk road on the east direct from Huddersfield to Bradford, and running from east to west are the Leeds to Halifax and the Wakefield main roads. The railway station, Lancashire and Yorkshire, of Lightcliffe is situated near the west end of the area, and there are two other stations at either end of the district. The surface is, generally speaking, a plateau sloping from west to east, from 650 feet above ordnance datum to 240 feet; it is also cut up by small gorges or ravines, and particularly by what is known as the Holme Valley. The site is well watered and fairly well timbered, and contains many unexpected natural beauties.

The drainage of the greater part of this proposed new area will be comparatively simple, as by a fortunate foresight of the Council in 1907 a main sewer was provided, practically following the lines of the Holme Valley Brook.

The district is being developed, and representations have been made to the Council by an owner of over 120 acres of suitable land, he having some 350 operators in his works who cannot find housing accommodation in the district, and who have to travel at inconvenience from outside places. This owner is, we understand, offering not only no objection but assisting

the Council; for instance, he has had given public illustrated lectures to educate the ratepayers generally on the advisability of affording housing accommodation near at hand, and preventing, by means of the new Act, the formation of new slums on this fine piece of open country. Another owner has offered his sympathy, and made a generous offer of land for an open space or public building.

Further, a builder recently submitted plans for 158 cottage houses on the old street-and-block lines on the plot marked X at the east end of the area. By moral suasion he was prevailed upon, and generously agreed to amend his plans and lay out his land as now shown. He has given the land for the principal road, and the Council has offered to mark it as a set-off to the loss occasioned by the less lettable value of 95 houses instead of 158. The houses are now in the process of building.

It will thus be seen that there is every prospect of friendly co-operation between land authority and owners—a fortunate state of affairs, and one which we hope to find in existence in many other districts. In view of this, it is quite possible to have published a tentative plan of roads between the preliminary application to the Local Government Board. Plate 40 shows these suggested new roads in dotted lines. Some of these have already been agreed upon to be carried out, the owners generously giving the land. A preliminary survey of the irregular site disclosed the costliness of attempting a symmetrical plan of cross or intersecting roads. It was also found from views taken at various points that straight lines would spoil views and make gradients difficult. The Gorge, Holme Valley, is fairly deep; the centre piece of Bottom Railway Viaduct is over 100 feet in height. At a lower point, by a workable gradient and comparatively short span bridge, a road for vehicles can be obtained when required in the future. It is hoped to preserve the greater part of this low-lying valley as a public park.

We cite this example of Hipperholme as typical of many districts in touch with manufacturing areas which would do well to exercise some of the foresight here shown. We also congratulate the Urban District Council of Hipperholme on the general feeling of friendly co-operation which exists to further the advantages of town planning.

Great Crosby U.D.C.

We illustrate the proposals for a town-planning scheme which was brought forward by the Chairman of the Great Crosby Urban District Council in October last. The proposals were put forward with a view to raising discussion and arriving at some definite ideas before embarking upon a town-planning scheme, and they are of interest as showing the immense value which the Act has had in stimulating local interest in development.

Great Crosby was formerly a large village situated about a mile from the coast to the north of Liverpool; it has given its name to the main channel from the mouth of the Mersey—the Crosby Channel. The Southport line (now electrified) runs between it and the sea, and this seaboard area has in recent years become a suburb of Liverpool—Seaforth, Waterloo, and Blundellsands being continuously built up. Building is also advancing inland over the flat Dutch-like country towards the ancient village of Sefton, and the Liverpool tram system reaches in this direction as far as the centre of Great Crosby village. It is pretty certain, therefore, that development will be rapid in this district in the near future. The property is largely in the hands of one owner, and, as may be seen in the suburb of Blundellsands (to the left of the map), some attempt at shapes has been made in the laying-out of the roads. Towards Great Crosby, however, a much more haphazard state of things has prevailed, and we are glad to see this desire to deal with things in a broad spirit.

Without going into the plan in detail, or attempting to criticise it (which is really

a matter to be thrashed out by the local Council and surveyor), we would like to point out one or two features which the plan suggests, and which, we are sure, would hardly have obtained recognition before the study of town planning was recognised as essential. These are such features as main country roads, railway developments, &c., which are here laid down in advance, whereas formerly they were almost invariably left to chance.

The suggested road on the line A, A, carries on the line of the present Liverpool Road (along which the tram runs) to the boundary of the district in the direction of Southport, leaving it for the neighbouring authority to continue it further. B, B is a suggested loop line from the Liverpool to Southport electric railway, which might here become practically an express electric tram service. The suggested road at right angles to the coast C, C*, leading in the direction of Sefton Meadows, also supplies a great traffic need. It will be seen that it joins Mr. Kelly's proposed road K, K, directed from Liverpool to Southport. Finally, an encircling outer boulevard, D, D*, 80 feet wide, is suggested; in an earlier scheme this was carried northwards parallel with the new line as far as Hightown Station. As regards delegation of areas, three main types are indicated: Suggested open spaces, shopping and industrial areas (there are already some small factories in the village), and residential districts. In the shopping area, it is suggested that the houses which are purely residential should have one-fifteenth acre per house. In the residential district, the different sections vary from one-twelfth to one-fourth acre per house.

National Conference on Town Planning at Liverpool

The Conference which was held on February 23rd—24th at Liverpool marked a definite stage in the progress of the Town Planning Act. The real and central point

* NOTE.—The lines showing these roads have been obliterated in reproduction.

EDITION OF 1909.
WEST DERRY INDIA

LANCASHIRE SHEET XXVIII. N.E.
LITTLE CROSBY C.A.

WEST DERRY INDIA



SUGGESTED NEW ROADS AND BRANCH LINE

GREAT CROSBY

of interest which drew over 700 delegates from various parts of the country was the fact that one of the two authorities in the whole of England who had been through the first stage of the Procedure was sending two representatives, their Chairman and Clerk, to give the others the benefit of their experience. The fact that this authority, together with that other one (which was not represented at the Conference) has since heard that its application has been agreed to, has lent confirmatory value to their statements. The authority which was represented was the Ruislip—Northwood U. D. C.; the other authority (which has prepared two schemes) was the Birmingham Corporation; and it is to be regretted that they were not also present as we were aware of some slight feeling among those who came from large popular manufacturing towns that a small and purely residential rural suburb was hardly adequate to help them in their more urgent needs. In point of fact the feeling was entirely unjustified as the questions raised in this connection were purely those of legal procedure, and a small authority could yield as valuable experiences as a large one in this respect. Still, we would have liked to have heard the views of the Birmingham representatives in corroboration of the Ruislip—Northwood.

Three subjects were down for discussion at the Conference, and it was distinctly stated that the general desirability of Town Planning should be taken for granted, in order to avoid impassioned but needless harangues. They were as follows:—

(1) The actual details of the various steps which should be taken prior to the presentation of a formal application to the Local Government Board for permission to prepare a Town Planning scheme;

(2) The extent to which a Local Authority should, under a Town Planning scheme, relax or alter conditions relating to widths of roads and methods of road construction;

(3) The standards as to limitation of the

number of houses per acre, and the best practical method of applying these standards in the preparation of Town Planning schemes.

It will be seen that it is to the first of these subjects that we have alluded, and this was, as we have already said, the important contribution of the Conference to the movement; the second and third were full of interest, but elicited more of general talk and an interchange of views than solid matter.

The Conference was opened by the Lord Mayor of Liverpool on the Thursday afternoon, and Alderman Thompson, of Richmond, took the chair for the three sessions. The representatives of the Ruislip—Northwood U. D. C., who gave a short account of their scheme, and who kindly submitted to be cross-examined by any member of the Conference, were Mr. F. M. Elgood, F.R.I.B.A., Chairman, and Mr. E. R. Abbott, Clerk to the Council, and it was decidedly encouraging to hear their joint declaration that the difficulties were by no means as formidable as has been frequently stated.

Mr. Abbott even expressed an affection for the Act, and said that he thought the procedure, helped as it has been by every aid and facility being afforded by the Local Government Board, could, in the preliminary stages, at any rate, hardly be bettered. This point, namely, that the Local Government Board, as at present existing, is prepared at every point to help forward Town Planning, and do away with unnecessary red tape, was brought out continually during the Conference. Article 34 is of the utmost importance in this connection, and the Chairman emphasized this by saying that it should have been numbered Article 1. "Where the Board are satisfied that there is reasonable cause for dispensing either conditionally or unconditionally with compliance with any requirement of these Regulations, or for varying any such requirement, the Board may by order, or otherwise, as they may think fit, give the necessary dispensation" (providing, of

course, that the actual requirements of the Act of 1909 are not infringed). An instance of this willingness to meet Local Authority was given by Mr. Abbott. Under the regulation requiring the service of notices upon all occupiers of property was included those whose interest was less than that of a quarterly tenant. Mr. Abbott made application under Article 34 to dispense with the service of notices upon this class of occupier, and in less than a week he received a sealed order of the Board dispensing with such service, not only of the intention to apply for authority to prepare a scheme, but throughout the proceedings on the scheme. This, of course, will save a large amount of time, trouble, and expense.

An interesting discussion followed, during which one point was demonstrated, that many of the delegates present had only a superficial acquaintance with the working of the Act. Such fallacies, which we thought had long been exploded, were again brought up,—that the obtaining of a Town Planning scheme for a district will entail a great deal of expense, through the necessity to construct a whole network of roads; whereas the roads are only there *in potentia*; it is not until the land is actually being developed that the road will be constructed, and then it will follow the line laid down for it in the scheme.

Another difficulty has been exclaimed against in the estimate of cost which has to accompany the preliminary application. Already in the interview held between the National Advisory Town Planning Committee and Mr. J. A. E. Dickinson, the Comptroller of the Housing and Town Planning Department of the Local Government Board, on November 28th, 1910, the Comptroller stated that the "Board fully recognised that it would not be practicable in all cases for a local authority, at this preliminary stage, to furnish accurate estimates of the cost of carrying a Town Planning scheme into effect, especially with regard to compensation." Although Mr. Abbott was not at liberty to furnish the Conference with the text of his estimate, he said enough to show that it was only a very

general affair, and that the Board had intimated that the words of the Regulations, Article X., "as nearly as may be practicable," will be interpreted in a broad sense. In point of fact, with the help of possible "betterment" to neutralise possible compensation, the sum which a Town Planning scheme is to cost the Council may be so reduced as not to frighten the smallest district.*

One other feature may be mentioned in connection with the service of notices, which is probably the cause of the chief expense in the preparation of a scheme, viz., the finding out the owners of all the land to be included in the scheme. Owing to the absence of any land register, this, which would be the mere question of referring to a book in Australia, took an expert six weeks to find out in the nine square miles which the Ruislip—Northwood Council propose to include under their scheme. It was necessary to ascertain the ownership and occupation of some thousand different parcels of land, with some 350 names.

Mr. Abbott also emphasized another important point which is occasionally lost sight of, and this is that the object of the preliminary stage and of the L. G. B. inquiry which may follow, is limited to two issues :—

(a) Whether there is to be a scheme or not;

(b) What area is to be included.

There is no question whatever of the type of development, and therefore we may say in passing that the architectural aspect did not enter into the discussion at all. It would also seem advisable that as much as possible should be included in a scheme to begin with, as it is easier to drop than to add. Certain already built-up portions were excluded from the Ruislip scheme, partly in order to avoid extra expense in serving notices, and it is thought that it may be necessary to go in for another Town Planning scheme for these small areas, as it would otherwise be quite possible for a few houses to be pulled down,

* See the estimate included in the Panorama of the First Stage, page 11.



MR. DIXON'S PLAN
LIVERPOOL GARDEN SUBURB

and works put up in their place, without the restrictive power which the Act would confer on the rest of the district.

The second and third subjects, as we have already said, did not produce such valuable results. Some figures and diagrams which Mr. Unwin contributed to both were the most interesting features; but, unfortunately, these did not receive adequate discussion. After a closely-reasoned first session, the Conference betrayed an invincible desire to stray from the points at issue, a tendency which the heroic efforts of the Chairman were unable to check.

An exhibition of some interesting contemporary Town Planning projects had been got together by the Liverpool School of Civic Design, and the Conference closed with a visit to Southport on the Saturday morning.

Mr. Aldridge, Secretary of the National Housing and Town Planning Council, is to be congratulated on the success of this Conference, and on the large attendance of delegates.

Competition for the Liverpool Garden Suburb at Childwall

The Committee of Management of the Liverpool Garden Suburb Tenants, Ltd. (affiliated to the Co-partnership Tenants, Ltd.), offered three prizes (£25, £10, and £5), to be competed for by the students of the School of Civic Design, and to be awarded for the three best schemes for laying out the estate at Childwall. Mr. Raymond Unwin was appointed the assessor, and the designs were to be worked out under the superintendence of the Professors of Architecture and Civic Design. The three winning designs were to become the absolute property of the company, who reserved to themselves the right to make use of any of them, but did not undertake to do so.

The estate, which we have already described, and of which a plan for a small portion was illustrated in our last issue, is traversed by two important roads—the old

Thingwall country road, of picturesque curve and considerable charm (see plate 79, No. 3), and at right angles to it a portion of the new Queen's Drive, known as Priory Road. There were further indications of a plan which Mr. Thomas Adams prepared some time ago for the whole of this estate of the Marquis of Salisbury, which are shown in the dotted lines to the bottom of the plan; these lines, however, were not obligatory, though they exercised considerable influence on the laying out of the south portion of the site. It was further suggested that the boundary on this side might be adjusted, and it will be seen that to complete the schemes illustrated a certain amount of land will have to be added, or at any rate roads laid out in consonance with the Garden Suburb's plan. Another feature was an isolated plot at A, of a house and garden which has not yet been acquired and which was to be left in the scheme; at this point the broad Thingwall road tails off into two small lanes and is not continued, as its direction naturally suggests, to a bridge which already exists across the Cheshire Lines. It was suggested that some such connection be made to the Warrington Road, to the east. The highest portion of the site is towards the south, just to the east of the Queen's Drive. Towards Broad Green Station the ground is low-lying, and naturally suggests a park. The competitors were further supplied with a plan in which the estate was divided up into six plots, and the approximate number of houses on each plot was suggested, with their rentals, viz., £30-£35 houses facing Priory Road (the portion of Queen's Drive), £25-£30 houses facing Thingwall and all other main roads, £16-£13 houses facing other roads. In general the houses on the land were not to be more than 12 and not less than 10 per acre. One-tenth of the land comprised in each of the six plots was to be laid aside as open spaces.

The difficulty of the problem lay largely in the existence of roads and a former general scheme of development, which,

while not binding, was still considerably influential, and the somewhat detailed requirements of the promoters.

One month was allowed for the competition, and of the eight sets sent in, Mr. Unwin selected Mr. J. N. Dixon's for first place, Mr. J. H. Mawson's for second, and Mr. R. H. Mattocks' for third.

A comparison of these three designs is instructive as illustrating the variety of treatment which is possible within fairly narrowly defined limits. The best feature of the first premiated is the satisfactory way in which the plots and houses work, the position of the church on the highest ground and somewhat retired from the traffic centre; this latter we feel is too large. The Thingwall Road is straightened up from the traffic centre, past the plot A and with a slight curve to arrive at the bridge across the Cheshire Lines. Good access is also provided from this traffic centre across the park to Broad Green Station.

Mr. Mawson's scheme gives a much greater curve to the Thingwall Road, thereby working in more neatly the island plot A (see plate 42). His plan has not so many sweeping curved roads as the former, and is perhaps the most formal of those premiated. The central circus is of more reasonable dimensions than the winning design.

Mr. Mattocks' scheme is in many ways very attractive. A charming feature is an almost complete circular walk round the estate on non-traffic routes and through enclosed garden squares. His treatment also of the awkward plot A is exceedingly skilful. Very interesting, too, is the cross vista, parallel with the Queen's Drive, terminating with a church (or school) at one end and a group of houses seen across a green at the other; this green also preserves an existing group of trees. The number of houses facing on to practically enclosed squares would, however, have made this scheme difficult of execution under the Liverpool by-laws.

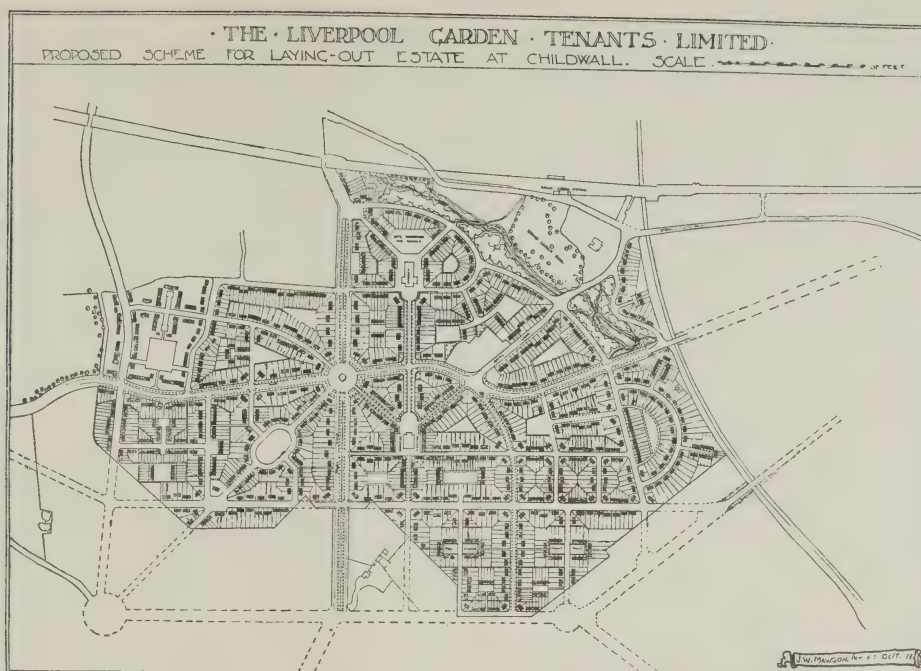
The award for this competition was

made at an evening function forming the close of the National Conference on Town Planning held at Liverpool. It took place at Liberty Buildings, the home of the School of Civic Design. Mr. J. P. Reynolds was in the chair, and Mr. Henry Vivian, representing the Co-partnership Tenants, Ltd., presented the premiums after Mr. Unwin had read his award. In his speech Mr. Vivian outlined the general movement of town planning in its particular relation to the principle of co-partnership, which he described as the just balance between the claims of the individual on the one hand and the claims of society as opposed to the unfettered freedom of the individual on the other. It was significant that the gain which Mr. Vivian stated as the first which the community would enjoy as a result of town planning was beauty; hygiene, cheapness of housing, &c., followed. As some sort of tribute to the general high level of the plans sent in and the success of the competition, Mr. Vivian announced that his Board had decided to give an additional prize of £5 to be divided among the eight competitors, for the purchase of books.

The Liverpool School of Town Planning

The second session of the Department of Civic Design in the University of Liverpool came to an end on March 24th, with the examinations for the diploma and certificate in Civic Design. The candidates were examined in six subjects, and were also marked for the studio work, consisting of various projects carried out during the course. G. N. Dixon obtained his diploma, and the following obtained certificates: J. H. Dixon, J. W. Mawson, A. W. Panton, T. W. Hooley, R. H. Mattocks.

The external examiner was Mr. A. V. Lanchester, F.R.I.B.A., Secretary of the Town Planning Committee of the Royal Institute of British Architects, and the internal examiners were the professor and



MR. MAWSON'S PLAN



MR. MATTOCKS' PLAN

LIVERPOOL GARDEN SUBURB

lecturers in their particular subject. The following papers were set :—

CERTIFICATE IN CIVIC DESIGN.

OUTLINES OF TOWN PLANNING.

[Answer SIX questions, including No. 3.]

1. In a town where the population has become very congested, and where sites available for the erection of lower-class dwellings in the immediate vicinity are restricted in area and very valuable: what would you suggest to relieve such congestion, and how would you bring it about?

2. In laying out a new town with a single trunk terminus or through station, where would such a station be best situated, and what system of subsidiary transit, if any, would you provide in order to distribute the passengers throughout the town? Sketch one or more possible arrangements.

3. It is proposed to build a new seaside town on the west coast of Lancashire; the new town to be a residential resort for the middle class, and it is assumed that there exists a large commercial town within one hour's journey by rail. Describe several of the different types of residences you would advocate providing, also mention some of the public and recreative buildings which you would consider necessary. Say how they would be situated in reference to one another, and generally on what principle would the main streets be laid out. It is assumed that the site is practically level and that the foundation is gravel and sand. Illustrate, with sketches, any interesting feature of the proposed scheme.

4. With due regard to economy of construction, what provision would you make in the planning of a town of 400,000 inhabitants for the collection and distribution of goods, taking into consideration only such as were manufactured in or used exclusively by the inhabitants of the town? Mention some of the conditions which would control the method by which this was effected.

5. How would you distinguish between a public reservation, a suburban park, and a town park or public garden? Quote existing examples and say how each should be designed so as to provide for the different purposes for which each is required. Mention one or more ways in which they might be disposed about a town, how they might be connected together, if at all, and some of the incidents that each might contain.

6. Give a brief description of the work of the Co-partnership Tenants Company, Ltd., and describe the financial basis of their organisation.

7. In constructing and laying out a new road which may one day become an important thoroughfare, but which at first will be but little used, what provision would you make, (a) with a view to economy, (b) with a view to meeting future requirements?

8. How is building development affected by the cost of road construction and land?

Show how development is affected as regards the provision of dwellings for the lower class, (a) where land is worth 1d. per yard, (b) 2d. per yard, and (c) 3d. per yard rent calculated at 25 years' purchase.

9. Give a short account of the different extensions of the town of Liverpool as they have been carried out between 1800 and 1850, and 1850 and after, and state where the boundaries of the city were about the year 1800.

10. Trace the historical development of vialral and axial planning in towns, also briefly describe the origin of radial planning and show how it has developed.

CERTIFICATE IN CIVIC DESIGN.

LANDSCAPE DESIGN.

[Answer SIX questions, including Nos. 6, 7, and 8.]

1. Give three at least or four methods whereby water may be introduced effectively into civic design both in streets and in public parks. State the nature of the appeal that water makes to the senses and why it is desirable in large sheets in the parks of smoky towns.

2. In forming a public park what is the difference you advise in preparing clay ground and sandy ground for the growth of trees and plants?

3. In choosing and disposing the trees and shrubs for a public park, would you advise the free intermixture of various kinds of trees, or what method of grouping do you suggest in order to produce the most pleasing effects?

4. What class of trees would you plant in a street 50 feet wide where the houses have a level roof-line and are placed 20 feet back from the road line? What species of trees would secure contrast most effectively, and what species and character are to be avoided, in such instances?

5. What kind of trees are most suitable for a wide central avenue having heavy traffic

routes on both sides, and at what distance apart would you plant the trees ?

6. What is the nature of the soil and subsoil best adapted to a well-chosen cemetery ? State what marks an improperly chosen cemetery and the soils that are most favourable to the decomposition of buried bodies. State some of the chief dangers to be feared from cemeteries.

7. Given a level cemetery, 40 acres in extent, with two chapels. Indicate by a rough sketch, showing how you would place these chapels in relation to the approaches, entrances, and superintendent's house and offices. Would you advise more than one approach ? If so, why ?

8. Give a list, in the order of reference, of *six* flowering shrubs most suitable for a town garden. Also *six* evergreen trees adapted for a town park. Also *twelve* deciduous trees suited to town gardens and parks, three of which are to be berry-bearing for winter effect.

9. Where, in towns, are profuse floral displays of colour desirable ?

CERTIFICATE IN CIVIC DESIGN.

CIVIC ARCHITECTURE.

[*Four questions only to be attempted ; your replies may be illustrated with sketches, which should be clearly drawn.*]

1. State what is the essential difference between the formal and picturesque street in a town, give examples, and say what you would consider to be the appropriate place for each.

2. Has the direction of a street any influence on its design ? Mention several different types of streets which may be recognised as such by reason of their direction.

3. What is meant by thoroughfare, ring-strasse, boulevard, parkway, avenue, and street ?

Explain with diagrammatic sketch of a town, and give reasons for the characteristic treatment you would adopt in each case.

4. What influence has the height of buildings on the proportion and design of streets ?

What are the factors which should govern the design of vistas : (a) the approach, (b) the climax ?

5. Describe with sketch one of the following incidents in well-known towns : the Champs Elysées and Place d'Etoile, Paris ; the Piazza of St. Peter, Rome ; Waterloo Place, London ; and the Mall, Washington.

6. How would you treat the base of an iso-

lated classic building to be erected on ground falling sharply along the line of the main frontage ?

7. In what respects should the character of buildings affect the design of the adjacent streets and open spaces ?

CERTIFICATE IN CIVIC DESIGN.

CIVIC LAW.

[*Six questions only to be attempted.*]

1. Give some account of the Public Health Acts as they affect the laying out of towns.

2. Give a short general outline of procedure on a Private Bill. For what improvements is a local Act of Parliament necessary ?

3. What special powers does Liverpool enjoy in the matter of town planning ?

4. What is the object of the Town Planning Act, 1909 ?

5. Describe in outline the nature, constitution, and origin of the Local authorities concerned with Town Planning.

6. What matters may be dealt with by General Provisions under the Town Planning Act ?

7. Contrast the procedure for obtaining a Town Planning Scheme with the procedure for (a) a Private Act of Parliament, or (b) a Provisional Order.

8. Procedure Regulations require that applications to the Local Government Board must be accompanied by a declaration that the necessary notices have been served. Describe these notices.

9. Describe the process by which a Town Planning Scheme may be forced on an unwilling local authority.

10. What compensation is allowed to land owners injuriously affected by a scheme ? How is such compensation assessed ?

CERTIFICATE IN CIVIC DESIGN.

CIVIC DECORATION.

[*Answer four questions, including No. 1 ; your replies may be illustrated with sketches, which should be clearly drawn.*]

1. How you can best memorialise :—

(a) A Royal personage ;

(b) A soldier ;

(c) A statesman ;

(d) A philanthropist ;

(e) A poet, author, or artist ?

Suggest a suitable form, treatment, and position for such a memorial in each case.

2. What are the essential requirements to ensure success in placing a statue or statues in connection with the portico of a classic building ?

3. Mention several different kinds of fountains and explain the suitable use of each.

4. Under what circumstances would you use an arch as a public monument, also a column and an obelisk, and what are suitable positions for each ?

5. State your opinion as to the value of standardising such incidents in a city as lamps, pillar-boxes, railings to public parks and places, and the pedestals of statues. When, if at all, should such standardisation be broken ? Explain the circumstances which would justify a change.

6. In a public place which is 300 feet square a thoroughfare 80ft. in width passes through the centre of two opposite sides, two subsidiary streets also run along the sides of the square at right angles to the main street. In such a square how would you arrange the pavement, street refuges, if any, tram lines in the main thoroughfare, a monument in the centre, and lamp standards ? Illustrate same with a sketch diagram and section showing comparative height of buildings, lamp standards, and size of monument.

7. If it is desired to terminate a vista by means of a monument, what consideration will influence the form this monument should take ?

8. State your views as to the type and arrangement of artificial lighting which should be employed in a large square surrounded by public buildings.

CERTIFICATE IN CIVIC DESIGN.

CIVIC ENGINEERING.

[Two questions only to be attempted in each Section.]

A. ROAD CONSTRUCTION.

1. Show, by a sketch section, the type of carriageway you would adopt for heavy cart traffic. Name the materials and figure the thicknesses. Explain how you would render the surface impervious. The sketch need show only a portion of the carriageway.

2. To whom is the credit given for introducing small broken granite as a paving material for carriageways ? Who improved the system by the addition of large stones, or pitching, as a foundation ? Give two names.

3. Show, by a sketch cross section, how you would economically lay out a suburban road

80 feet wide when the full width is not immediately required for traffic purposes. A row of trees on each side should be included in the scheme. Show also by another section how you would alter the same road at a later period when increased accommodation was required for both vehicular and pedestrian traffic. The sections to be in outline only but giving dimensions in each case, details of pavements, &c., being omitted.

B. SEWERS AND DRAINAGE.

1. Why should the gradient or fall of a large sewer be flatter than the gradient of a small one ? State what you would consider suitable gradients for large out-fall sewers.

2. Sketch the cross section of a main sewer (on say the site of a stream or in countries subject to heavy rainfalls) to convey a town's drainage under normal weather conditions and which will also be of sufficient capacity to carry off a large volume of surface water. Of what material would you construct the sewer ?

3. What do you understand by the term "self cleansing" when applied to a sewer ? Which is the best form of cross section for a self-cleansing sewer ?

C. REFUSE DISPOSAL.

1. Name some of the objectionable features (if any) to the following methods of refuse disposal :—

- (a) Tipping on land.
- (b) Dumping at sea.
- (c) Burning in destructor.

2. In selecting the site for a destructor name some of the principal points to be borne in mind.

3. Describe shortly a sorting plant for ash-pit refuse and name some of the materials which are of commercial value.

D. TRAMWAYS AND TRAFFIC.

1. Give a short description of the electric trolley bus system, its source of power, ease and economy of operation, &c. Under what circumstances would the trolley bus be introduced in preference to the ordinary tramway ?

2. Name some of the (a) advantages, and (b) disadvantages of the electric conduit system of tramway, also some of the (c) advantages, and (d) disadvantages of the overhead trolley wire system.

3. Show, by a sketch-plan, how you would arrange the junction of six busy thoroughfares, the traffic to be regulated on what is known as the gyratory system. Show by arrows the

direction or routes of the various lines of vehicles.

What are the advantages claimed for this system?

DIPLOMA IN CIVIC DESIGN.

TOWN PLANNING.—I.

[THREE questions only to be attempted. Great importance will be attached to clearly drawn sketches illustrating the answers to these questions.]

1. Under what circumstances is payment of compensation to owners or others likely to arise in connection with the execution of a town planning scheme under the Act, and under what circumstances is "betterment" likely to accrue to the Local Authority?

2. State the requirements of a modern railway terminus (*a*) as regards arrangement, (*b*) as regards approach, (*c*) as regards architectural treatment. At the same time describe one or more well-known termini with which you may be acquainted.

3. In your opinion what are the relative advantages and disadvantages of the tenant dwelling and the self-contained home?

State what has been done in housing the lower classes in any three of the following towns: Liverpool, Manchester, Glasgow, Birmingham, Ulm, Bremen, and London.

4. To what extent should communal control and individual freedom be allowed in suburban development, and how should the opposing influences be adjusted? State what in your opinion would result from excess in either direction.

DIPLOMA IN CIVIC DESIGN.

TOWN PLANNING.—II.

[THREE questions only to be attempted. Great importance will be attached to clearly drawn sketches illustrating the answers to these questions.]

1. What in your opinion is the future of local transit, and where are such of the many systems now in operation used to the best advantage? Mention any systems of transit at present only in an experimental stage, forecasting their future?

2. Give a rough idea of how you would group the different functional parts of a capital city—situated inland, on a navigable river.

3. State the considerations that have influenced the design of roads in England: (*a*) during the Roman occupation, (*b*) in the mediæ-

val period, (*c*) in the eighteenth and nineteenth centuries, and show how these considerations have affected both the general system of planning, and also the road spacing for the different kinds of traffic.

4. Give three examples of striking groups of buildings in the cities of Paris, Rome, or Vienna, and explain why you have felt them to be so.

Maldens and Coombe U.D.C. and the Restraint of Advertising

We have received a copy of a resolution passed at a meeting of the Maldens and Coombe U.D.C. on March 14th, 1911, which was brought forward partly as the result of a letter which appeared on the Saturday before in the *Surrey Comet*. The writer, Mr. J. W. Johnson, of New Malden, calls attention to the recent erection of hoardings in the district which have caused an immediate and serious depreciation among good-class residential property, and have in many ways injuriously affected the amenities of the district. The Advertisements Regulation Act, 1907, does not give Local Authorities sufficient power with regard to controlling these erections, and even the powers conferred are not made full use of. The writer suggests that the clause in the Housing and Town Planning Act, 1909, which provides that Local Authorities shall allocate "special districts for special purposes" might be made to apply to advertising areas, which thus might be restricted to certain approved parts of the town or district.

The following is a copy of the resolution:

(Copy of Resolution passed at a Meeting of the Maldens & Coombe Urban District Council, held on the 14th day of March, 1911.)

"That in view of the ever-increasing number of public hoardings and similar structures used for the purpose of advertising, this Council desires to call the attention of the Local Government Board to the disadvantages and limitations of the Advertisements Regulation Act, 1907, as follows:—

- (1) The disfigurement of towns and districts in populous and residential centres ;
- (2) Decrease in rateable value where property prejudiced ;
- (3) The reduction in rentals of good-class residential property ;
- (4) The disadvantages of the limitations under Section 2 of the said Act, setting aside the objects and purposes of a Town Planning Scheme under the Housing, Town Planning, &c., Act, 1909 ;
- (5) The system adopted by certain owners of reserving and applying strips of land adjoining streets, footpaths, railway embankments, and gable ends of property where exposed to public view, much to the detriment of the area ;

and, therefore, do consider it desirable that steps be taken to secure an amendment of the Advertisements Regulation Act, 1907, with due regard to the following :—

- (a) For the powers under the Act being extended to all Local Authorities, irrespective of population ;
- (b) That the Act should be so amended as to closely follow the objects and purposes of the Housing, Town Planning, &c., Act, 1909, which provides that Local Authorities shall allocate 'special districts for special purposes.' (N.B.—This would mean that advertisement hoardings would be more strictly regulated, restricted, or prevented in certain places in any town or district, where such erections would affect injuriously not only the amenities of a public park or pleasure promenade, or even the landscape, but the amenities of the entire district) ;
- (c) That in the interest of public safety and protection, no public hoarding should be erected on any land fronting any street in a town or district, except at a distance from the said street equal to the height thereof."

Woldsea

One of the latest suggestions for the application of the "Garden Village" idea is that of a seaside residential town similar to the Hampstead Suburb. It may be thought that many of the existing sea-board towns already unconsciously have become Garden Cities, but Woldsea is to preserve a strictly residential feeling without any attractions such as artificial amusements, piers, theatres, &c. The place proposed is on the coast of Lincolnshire, near the old village of Huttoft, north of the Wash, between the existing sea towns of Mablethorpe and Skegness, which offer the usual artificial attractions in addition to the natural ones of their situation. The site is to be about 1,135 acres, and it has a frontage to the sea of about two miles. The coast is a continuous band of lofty sandhills thickly grown with buckthorn and other shrubs. It is the intention to preserve as far as possible these natural features. There will be no promenade and no unsightly rows of boarding-houses, and, it is hoped, no day-trippers. The desire of owning a country cottage or seaside bungalow is one that is growing every year, and we can see in the no very distant future a large section of the population who prefer to live well in the town (not far out in the suburbs) during the working year, and to own a small week-end cottage where they will spend considerably more time than their annual fortnight's holiday. Two factors are contributing to this tendency : the gradual improvement of living conditions in our provincial towns, as witness the many projects for the restraint of smoke, the keener interest taken in the beautifying of cities, tree planting in streets, systematic park provision ; again the spreading of intelligent amusements shown by the repertory movement in theatres, the growth of cheap concerts of good music and interesting and unusual picture exhibitions, finally, the feeling of civic pride and foresight which is shown by the wide interest taken in Town Planning—all these tend to render the living

in the town itself more tolerable and attractive than it was twenty or thirty years ago, and have called back into use many of the late Georgian houses which form a zone in many towns just outside the business area. To live within a walk of one's office may be as natural a thing in a few years as it was in the Georgian Period. But at that time the open country was also within a walk, and this leads to the other factor: quick and cheap transit. The natural result of this at first is for people to live in comparatively remote suburbs, but in the future the electrification of railways and other means for the rendering less formidable of travel will bring a vastly wider area of open country into the scope of week-end and occasional holiday houses. Many movements are fostering this desire to own a small house and garden somewhere, not the least being the growth of the co-partnership movement, and the seaside is for many people the natural setting.

It is, we imagine, with some such end in view that this new sea town is being projected, and one of the most interesting parts of the book which has been published by the Huttoft Town Planning Syndicate (which is financing this venture) is connected with the proximity of work-a-day towns to this holiday site. Within a radius of 80 miles or $1\frac{1}{2}$ hours' journey (even perhaps less in the future) are living over two million inhabitants, and just beyond the 100 miles' boundary are the vast populations of Middlesbrough, Manchester, Salford, Burnley, Blackburn, Rochdale, Bolton, Stoke, Stafford, and Birmingham, but the natural outlet for the greater part of these towns is the West Coast. Hence it is easy to see that with easy, direct, and cheap journeys of $1\frac{1}{2}$ to 2 hours a large population can be brought into touch with a healthy seaside town, which they need not have any fear of changing from a quiet into a rowdy resort. How often do people discover a small fishing village and go there year after year, and perhaps eventually build themselves a cottage, and then

suddenly by some strange chance others seem to find it out, at first the right sort of people, but eventually a class appears (though how they get there it is hard to guess) who get bored with the simple sea, beach, and sandhills; cheap lodgings are run up for them, pierrots begin to find them out; the little village begins to think it can turn itself into a Margate or a Blackpool, an attempt at a promenade is constructed, a pier is dreamed of, and then the whole former character disappears. The original visitor has to sell his cottage (now probably crowded out by shops and cheap lodging-houses), and go elsewhere. The object of this new garden sea-town, as far as we can judge, is to prevent this happening. Not to form, it is true, the secluded hamlet of one or two families, but to preserve the character of quiet and the simple pleasure of the sea, open air, and country.

We understand that a competition is to be held for this site, and that a descriptive book is in course of preparation which will deal exhaustively not only with this particular site, but with the general movement as illustrated in existing examples. The following extract from an advance copy which we have already seen indicates one of the many aspects which are touched upon in the book:—

Supposing a Nottingham business man wants a place where he and his family can spend occasional week-ends. A crowded hotel is not quite the thing he wants; more than that, the charges of even a modern hostelry become prohibitive when his family party is of average size. Woldsea not only shows him a cheap solution, but will enable him to make a profit out of his seaside home.

The amounts paid for houses and bungalows on the East Coast for brief periods are surprisingly heavy. Five or six guineas a week is a very common charge for what is scarcely a cottage. Even assuming that such rents may be maintained (an assumption, by-the-way, that is contrary to the present tendency of prices) it is easy to

reckon that any reasonable outlay in Wold-sea will be very profitable.

He builds a bungalow that costs him, say, £300. He wants the place for one complete fortnight in the height of summer and half-a-dozen week-ends during the year. This is how his budget would probably work out.

INCOME.	£	s.	d.
From 6 weeks' letting at £4. 4s. per week	25	4	0
— 10 week-end lettings at £1. 1s.	10	10	0

£35 14 0

EXPENDITURE.	£	s.	d.
Interest on £300 outlay whether own investment or partly borrowed on mortgage	15	0	0
Rates, taxes, and repairs (say)	12	0	0

£27 0 0

Profit on Bungalow after getting holidays and week-ends free ..	8	14	0
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Great Yarmouth

The Corporation of Great Yarmouth is fortunate in owning some 600 acres of land at both sides of their sea frontage, they thus have control of future development at its most important points. The character of inland growth is, of course, of great concern, but to a sea-board town the treatment of its sea-front is paramount. Mistakes may have been made in the past, but for the future the town front should be guarded from a similar recurrence.

We note that the Corporation has recently passed a plan for laying out a portion of this land at the north end of the town, and situated on the landward side of the railway. It is satisfactory to see that they do not intend to extract the utmost farthing from the land and are prepared to create a sort of garden suburb on their property. The example of Southport, where detached and semi-detached

building has been insisted upon almost from the beginning, is worth imitating.

We should like, however, to urge the Corporation of Great Yarmouth to go a step further yet and, instead of making plans for portions of their property, on however sound lines, to consider that property as a whole, and provide themselves with some general scheme which may be completed by degrees. We feel that their opportunity is exceptional. The sea-front is as important to a sea-board town as the civic centre is to an inland town, and they own the land that must in future be built on. We would suggest a national competition for laying out these Corporation estates or the appointment of a commission of two or three experts who might also consider the general growth of the town in other directions.

Halifax : Competition for Town Plan

Town Planning in Yorkshire appears to be making considerable headway. We alluded to the proposed coal town with Doncaster as its centre in our last issue. In this number we chronicle a competition for a Town Plan for Halifax, comprehensive proposals for Sheffield, and a proposed scheme put forward by the U.D.C. of Hipperholme.

The competition for Halifax has been instituted by Mr. J. H. Whitley, M.P., and it is his intention to present the three first premiated designs to the Corporation for permanent exhibition. The object of the competition is to prepare the way for the Town Planning Act in connection with the town of Halifax in general, and certain definite areas on the outskirts in particular. It is limited to architects having offices in the County Borough of Halifax, and the three premiums are 100, 30, and 20 guineas. Professor Adshead has been appointed assessor, and the designs must be sent in by September 15th, 1911.

The following are particulars of the requirements of the competition :—

The scheme submitted should :—

(a) be such as the Local Authority might properly make use of in connection with the preparation of a scheme under the Town Planning Act :

(b) be framed with due consideration of the Borough as a whole, and applied more particularly to the areas in which development may take place during the next 20 years :

(c) deal in broad outline with the areas over which Town Planning powers ought now to be sought for the following subjects :—

(1) New main roads for developing building land and connecting outlying districts of the Borough.

(2) Open spaces, recreation grounds, residential areas, industrial zones, sites for public buildings :

(d) deal in more detail with one or more areas likely to come under early development. The following areas are suggested as suitable for being dealt with in detail :—

(1) Shibden and Northowram, (2) Illingworth, (3) Ovenden, (4) Highroad Well, (5) Skircoat.

(These areas are coloured on a map accompanying the conditions.)

(e) give full consideration to economy of cost, architectural effect, and financial success in laying out the sites for the different classes of buildings, roads, open spaces, parks, and recreation grounds :

(f) make suitable provision for the reasonable needs of through transit, and, wherever practicable, adopt a gradient of not more than 1 in 20 for main roads.

One of these areas (the Northowram) is in close proximity to that of Hipperholme, described below.

We commend this action of Mr. Whitley as yet another means of interesting a town in its own growth and stimulating it to take action.

Bolton : The Appointment of a Town Planning Committee

A meeting which was held under the auspices of the Bolton Housing and Town Planning Society on March 30th marks an important point in this town's "planning" history. The main feature of the evening was a paper by Professor Adshead on the planning of future developments, which was fully illustrated by lantern slides. But this paper was prefaced by an equally important address by Mr. W. H. Lever, in which he called upon Bolton to make itself the beautiful city it might be. He insisted that use should be made of its wonderful surroundings, and he ridiculed the idea of people flying from the moors surrounding Bolton to live in far less interesting places, such as Southport. "There was no comparison, either for health or beauty, for there could be nothing more monotonous or dull than a perfectly level town on a sandbank—but people had left Bolton because, with the exception of one road—the Chorley New Road—there had been no consideration in the width of the road or the surroundings to make house building on such roads a source of pleasure and gratification."

Mr. Thomas Mawson also made a speech in description of the general movement and the necessity for education, both of the Public and Experts.

Perhaps the most valuable result of this meeting has been the formation of a Town Planning Committee to deal with the future development and beautification of Bolton. This Committee, we understand, is to consist of eight members—four members of the Council and four gentlemen not members of the Council, who are eminent for their architectural qualifications.

Forthcoming Conferences

Institute of Municipal and County Engineers

A Conference on Town Planning is to be held at West Bromwich in connection with the annual meeting of the Institute of Municipal and County Engineers on July 5th, 6th, 7th, and 8th. Twelve papers will be read by Municipal Engineers and other experts, and an Exhibition of Town Planning schemes will be on view.

Philadelphia

A National Conference on City Planning is to be held at Philadelphia on May 15th, 16th, and 17th. A large Exhibition is being collected together which will be

the most complete yet displayed of American Civics. An important exhibit will be the proposals for Philadelphia itself, which in many ways are the most far-reaching which any American city is at present embarking upon. The seven sessions of the Conference will include the following subjects: Harbour and Dock Development; Public Buildings, Open Spaces, and Waterways; Street Widths and Sub-divisions; Buildings in relation to the Street and the Site; Municipal Real Estate Policies; Financing City Planning; Proposed Draft of the American Town Planning Act. The president of the Conference will be Mr. Frederick Law Olmsted.

Town Planning Tours

The Garden City and Town Planning Association

The Easter tour of the above Society will start on April 13th, and will include Essen, Cologne, Dusseldorf, Frankfort, Mannheim, Heidelberg, Ulm, Nuremburg, Stuttgart, and Dresden. It is hoped also to be able to make a study of many industrial villages in the vicinity of many of these towns.

National Housing and Town Planning Council

The Whitsun tour of the above Society

is to include Amsterdam, Bremen, Hamburg, and Copenhagen, with an extension to Stockholm. All these cities have extensive Town Planning schemes in operation, and the object of the tour will be the investigation of comprehensive schemes of city extension rather than housing. The extension to Stockholm should prove particularly interesting in view of the attention which the Swedish law of 1875 has had concentrated upon it. The tour will last from June 1st to June 10th.

THE TOWN PLANNING REVIEW

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EDITORIALS

ST. PAUL'S BRIDGE, LONDON

Town Planning received public recognition in the highest sense when in the debate (June 14th) on the St. Paul's Bridge, the House of Commons re-committed the Corporation of London (Bridges) Bill by a majority of 57 votes, and recommended: "That it be an instruction to the Committee on the Corporation of London (Bridges) (Re-committed) Bill not to agree to any scheme for the construction of the proposed new bridge, including the approaches thereto, until they were satisfied that the scheme, both in respect of architectural design and convenience of traffic, is the one best adapted to the public needs and best suited to the character of the site." Mr. Morrell, who moved its re-committal, showed that the scheme, which was one fraught with the greatest architectural possibilities that this generation would be likely to see, was the result of the sole efforts of a chairman of committee, an engineer, and a surveyor, and that should such a scheme be allowed to be put into execution the greatest opportunity which the present generation possessed for improving the architectural beauty of London would be for ever lost.

We had thought that the philistinism of the House of Commons was ineradicable, and here we have a majority of 57 in favour of upsetting the solemn deliberations of a Select Committee on the flimsy pretext of the claim of Art! And this, although the only architect in the House who spoke, Sir W. A. Gelder, did not help matters by injudicious remarks about architects giving their services for nothing. Most effective support was given to Mr. Morrell's motion by Lord Henry Cavendish Bentinck, who exactly described matters by attributing the scheme to "a surveyor, an engineer, and a policeman"; and Lord Balcarres, who raised the

discussion above the plane of petty and immediate utilities, and showed the House that they had to deal with the future of London and her greatest monument, St. Paul's. The architects had condemned the scheme, Mr. Burns had not a word to say in favour of the Bill, and yet they were to agree to a matter of such vital importance to the beauty of London. It is useful to have at least one authority on Art in the House.

Mr. Emmott (Chairman of Ways and Means), in winding up the debate, urged two reasons for giving the Bill a third reading: firstly, because as regarded engineering difficulties, traffic facilities, and cost, the advantages lay with the scheme as embodied in the Bill (he doubted if the architectural aspect was of such enormous importance as the opposers of the scheme made out, and asked if the vista opened up by the alternative scheme was so wonderful), and, secondly, because if they rejected it they would cast a slur on the Committee. Again the cause of Town Planning found a swift champion in Mr. Lyttelton, who exploded the second reason, even as Lord Balcarras had shown how inadequate was the first, by telling Mr. Emmott that they had to consider the interests of London for all time, not the susceptibilities of a few evanescent individuals.

Thanks to the energy of the President of the Royal Institute of British Architects, and others who have been intimately associated with him in preventing this great catastrophe, we have now the opportunity afforded us of practically putting into operation a great city improvement scheme, and the question which naturally suggests itself at the moment is, Into whose hands is so great a responsibility to be placed? In view of the bitterness of feeling that has unfortunately prevailed, and the importance of the occasion, we would suggest a National Competition, each design to be the work of an architect and an engineer working in combination, and that a committee of four assessors be formed, three architects, including the President of the R.I.B.A., and the Engineer to the Corporation. Whatever is done now, let it have the widest approbation; let the responsibility rest on broad shoulders, and let the risk of mistake be reduced to the absolute minimum.



LOWER BRIDGE STREET LOOKING TOWARDS THE DEE BRIDGE



THE WHITE-GLAZED BUILDING WHICH HAS BEEN DEMOLISHED



BRIDGE STREET LOOKING TOWARDS THE CROSS
CHESTER

THE WHITE GLAZED BUILDING IN CHESTER

The re-committal of the St. Paul's Bridge Bill on the score of insufficient architectural study marks a great step forward in the attitude of the nation towards Town Planning. Of scarcely less significance of this progress is the demolition of a recently-completed façade in Chester on account of it being out of keeping with the character of the town. In the Pillory of our October number for last year we placed a white glazed building which was being erected in Bridge Street, Chester, one of the four original Roman cross roads, and which still preserves its "Rows" or arcaded walks on the first floor. We there somewhat severely reprimanded the citizens of Chester for not making an effective protest against this outrage. In order to give point to our action, we now illustrate this Glazed Building as it was completed, and contrast it with two other views of Bridge Street; the monochrome illustrations, however, can in no way convey the garish obtrusiveness of the glistening white material, with its gilded carving, when seen beside the toned timber and plaster work of the older buildings and the mellow brickwork of the 18th century; either of these two styles and material might have been adopted with propriety.

In placing this building in the Pillory, we refrained from stating that the owner of the property was the Duke of Westminster, whose grandfather's name is always associated with all that is best in the external aspect and inner life of Chester. This appeared to make matters worse; if the great landowner were to set such a bad example, how were the ordinary small property owners to be expected to venerate their native city?

Fortunately—owing, we hope, partly to our Pillory, partly to the sturdy protest of the Archæological Society, and to the universal indignation of Chester citizens and county folk alike, and, finally, we imagine, to the sudden awakening on seeing the completed front—the Duke decided, a few months ago, that a grievous mistake had been made, and, acting with admirable boldness, had the whole front stripped off.

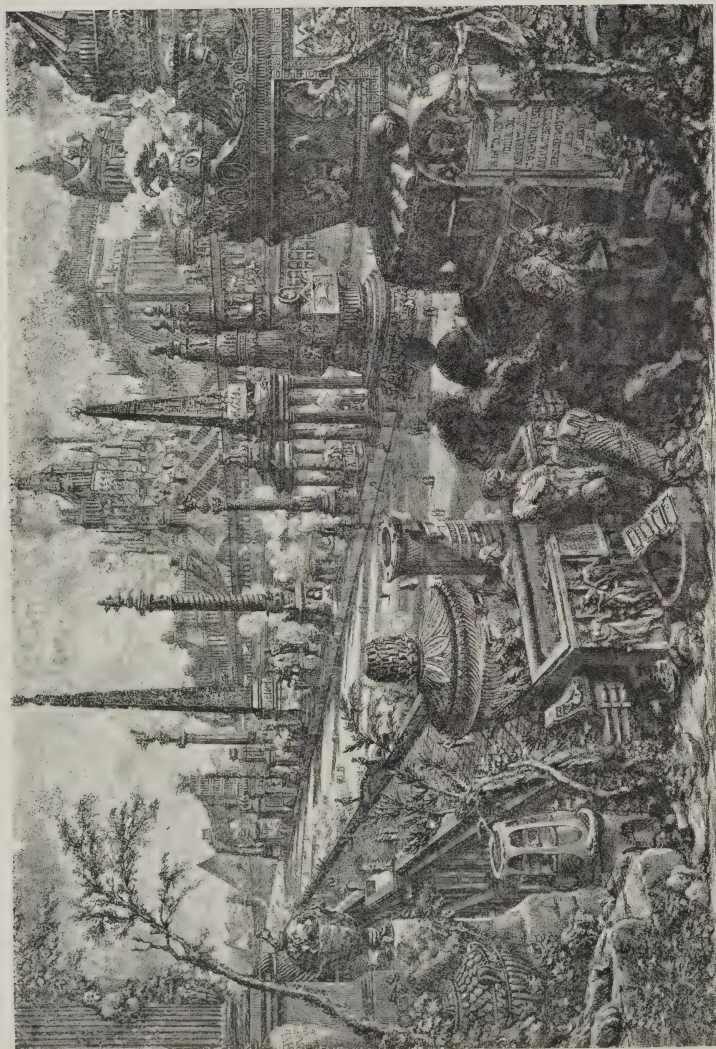
We hear that the architect originally designed a timber framed front, but the estate surveyors in the London office (at this distance out of touch with local feeling and requirements) suggested a material which would require less expenditure on annual upkeep—though why an estate like the Westminster, not altogether impoverished, should indulge in such pettifogging economies we fail to under-

stand. A simple brick front would probably have been considered too plain, and so, without a full realisation of its enormity, the white glazed front was sanctioned.

The new half timber front has already been begun, and we hope to illustrate it when completed.

Frankly, we feel that this action of the Duke of Westminster should have a great effect in making people realise the value of a street and a town as a whole. We have seen many a London square ruined by buildings no more incongruous than this Chester one, and we wish ducal action might similarly be called into play in the neighbourhood of Hart Street! Of course, this Chester building should never have been allowed to be begun, but its completion and subsequent destruction have given a dramatic intensity to the episode.

We trust that our Pillory may prove equally successful with other malefactors, though we feel strongly that prevention of crime is safer than its cure or punishment. It is not often that a missionary of such zeal as the Duke of Westminster is forthcoming to effect so sudden a conversion.



THE APPIAN WAY
After an etching by Piranesi

MONUMENTAL COLUMNS

The Decoration and Furnishing of the City—No. 2

Pliny, writing about A.D. 50, tells us that statues were placed on columns to raise them above others of ordinary men, and that the custom of erecting columns for this purpose is a much older one than that of erecting arches. The Greeks were probably the first to place statues on columns. Plate 46 shows a restoration of four such columns from Delphi and Olympia. These are not immense columns borrowed from the peristyles of temples, but original conceptions, subsidiary to the buildings and having an entity entirely their own.

It was reserved for the Romans, whose sense of fitness was less acute, to copy the pillars of their temples, magnify them, and use them in this way.

Perhaps the most notable of the columns erected by the Romans is that of Trajan, which originally supported a statue of that Emperor. A particularly beautiful feature of this column is the festoon of bay leaves which is wreathed around its pedestal, and upon which rest four eagles at the corners. A colossal cast of the pedestal and a portion of the shaft of this column is to be seen in the South Kensington Museum. It is the prototype of many others since erected during both ancient and modern times; that of Marcus Aurelius, which is still standing, was more or less a copy of this one; it, however, does not possess that perfection of proportion which may be claimed for that of Trajan. Apart from these colossal columns, the Romans adorned their public places with columns of a smaller type, as the Rostral Column. Such a one was erected 260 B.C. to the memory of Duillius, a naval hero who defeated the Carthaginians. Cannina's restoration of this column is shown on plate 52. In form it was a Doric shaft enriched with the prows of ships. Innumerable columns erected since have been based on this example, and it has come to be the traditional form of monument to commemorate a naval success. But in using it, it must be remembered that it has its limitations of scale, that it is essentially a subsidiary feature, and that it cannot serve the same purpose as and must not be used in place of great commemorative monuments like the Vendome Column in Paris, and the Trajan Column in Rome.

It is very suitably placed in duplicate in front of the Exchange at St. Petersburg, but single columns of this type have been erected in important positions in Vienna and New York in questionable taste. The latter is badly proportioned, much too slender, and very unsatisfactory in every way; it supports a statue of Columbus, and is situated in Columbus

Square. The former supports the statue of Admiral Tegetthof, and is the better example of the two (see plate 52). The connection between the bronze work and the marble in both these examples is unsatisfactory. Bronze work used in this way to ornament white marble should be gilt, otherwise the contrast will be too hard, especially in smoky towns where bronze does not assimilate green hues. Remains that have been found of ancient bronze work used in this way appear to have been heavily gilt.

Columns were erected by the Romans throughout the Empire, and may still be seen standing at Cussy in Burgundy, at Brindisi, at Alexandria, and at Antinoë. The latter example is of the Corinthian order, and its shaft springs from an acanthus base.

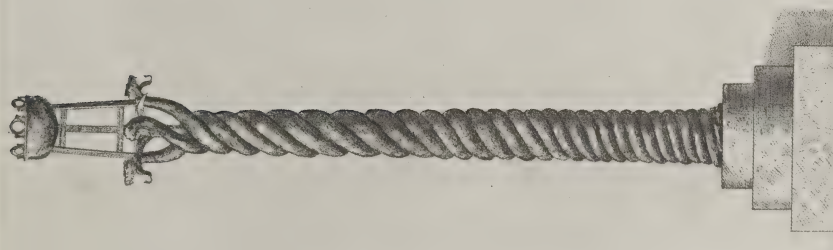
During the Mediæval period it was only those countries like Italy, which were immediately influenced by the proximity of Ancient Rome, that knew anything of the erection of columns, or which indulged in this way in honouring distinguished men. During the Renaissance it was the custom of the Italians to erect monuments out of the remains of the Imperial ruins, and according to Piranesi, Pope Paul V. erected a column in Rome which was taken from a Roman temple. This column (see plate 52) is of particular interest because it supports a cornice and a frieze. Compared with our own Nelson Column, which is of the same order, it is much finer in outline; in the case of the latter, the figure is too abruptly placed upon the cap.

Of columns erected out of Italy during later Renaissance and modern times, few perhaps are better known than that which was designed by Wren about 1671 in commemoration of the great fire of London in 1666. As a Doric shaft commemorating an event it is perhaps unsurpassed. See plate 50.

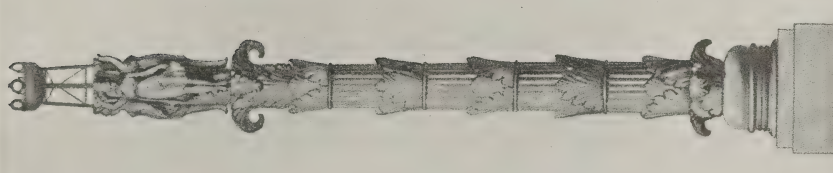
Of other important Doric columns (erected in comparatively modern times), mention should be made of the Vendôme, Paris, designed by Gondouin, a pupil of Blondel, and erected in 1810 to commemorate the victories of Napoleon. It supports his statue, and the whole is cast out of the metal of 1,200 guns captured in his wars. There is also the Napoleon column at Boulogne originally designed to commemorate the despatch of his armies for British shores. It was intended that the statue should face out to sea, but eventually it faced in-shore. Many similar columns based with more or less correctness on the Trajan, exist in this country and in the colonies, most of which support statues of either Nelson or the Duke of Wellington. Amongst the more important may be mentioned the Duke of Wellington Column at the head of the Duke of York Stairs, London; the Wellington Column, Liverpool; columns at Dublin and Yarmouth designed by Wilkins, a column at Newcastle designed by Green, one at Hull supporting a statue of Wilberforce, and one at Shrews-



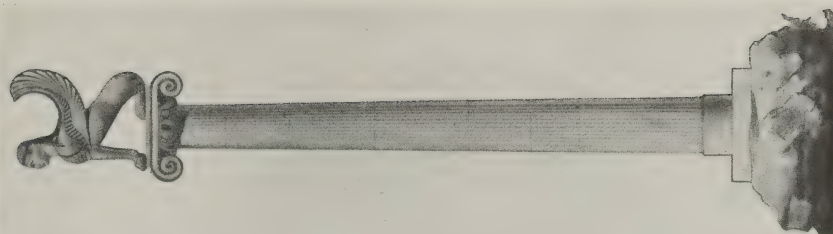
"Victory,"
by Paeonius,
Olympia



Serpent-Column
commemorating
Battle of Plataea,
Delphi



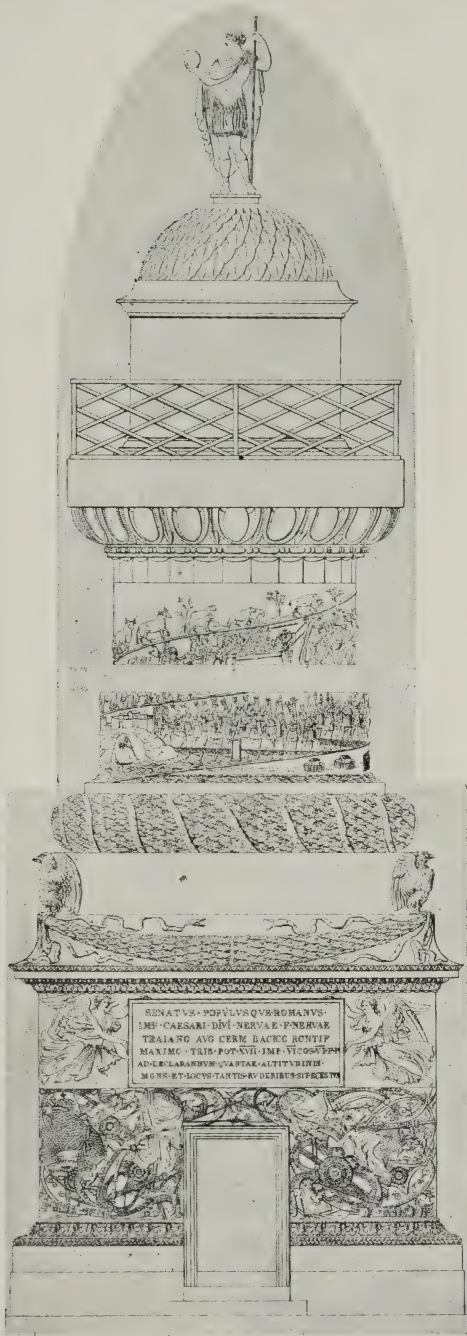
Acanthus-Column
with group of three
Caryatid Dancers,
Delphi



Archaic Sphinx,
dedicated by the
Naxians,
Delphi

After Luckenbach

RESTORATIONS OF GREEK MONUMENTAL COLUMNS



DETAIL FROM DURAND'S PARALLÈLE



AS EXISTING TO-DAY

TRAJAN'S COLUMN, ROME



THE WILBERFORCE MONUMENT
HULL



NELSON MONUMENT
DUBLIN



NELSON COLUMN, YARMOUTH



LORD HILL'S COLUMN, SHREWSBURY



DUKE OF YORK'S COLUMN, LONDON



WELLINGTON COLUMN, LIVERPOOL



COLUMN OF VICTORY, BERLIN



COLUMN OF CONGRESS, BRUSSELS



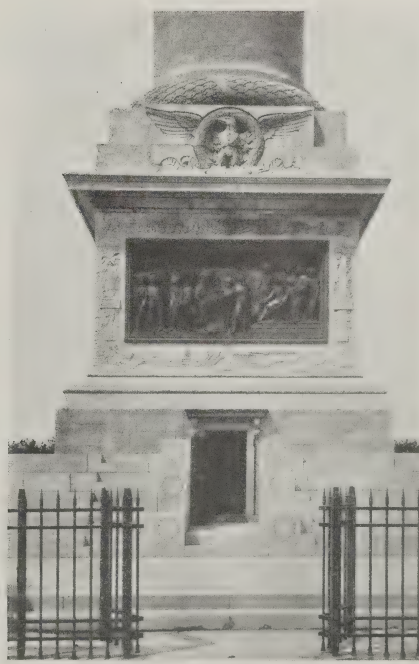
THE FIRE MONUMENT
LONDON



BASE OF THE FIRE MONUMENT



COLONNE DE LA GRANDE-ARMÉE
BOULOGNE



BASE OF THE BOULOGNE COLUMN



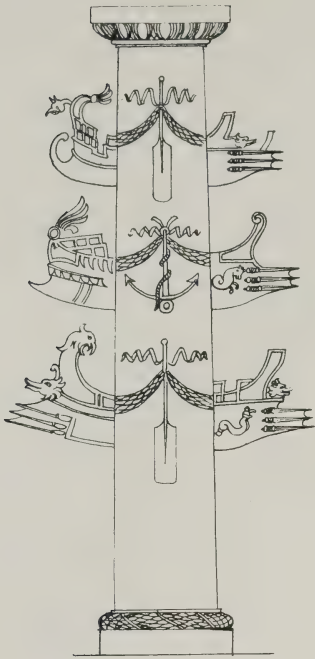
COLONNE VENDÔME
PARIS



COLONNE DE JUILLET
PARIS



COLONNES DE PHILIPPE-AUGUSTE
PARIS



COLONNA DUILLA
After Canina
ROMAN COLONNA ROSTRATA



TEGETTHOFF MONUMENT
VIENNA

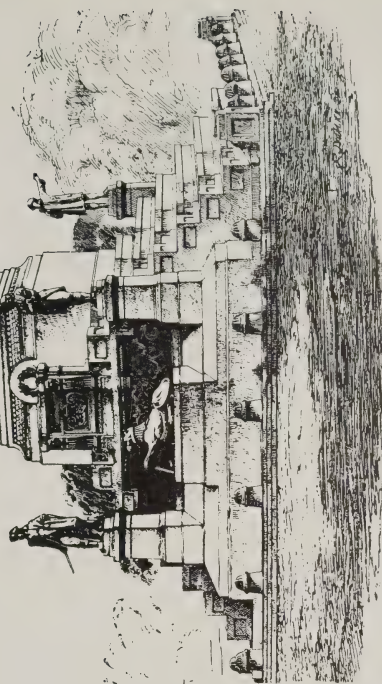


NELSON COLUMN
LONDON

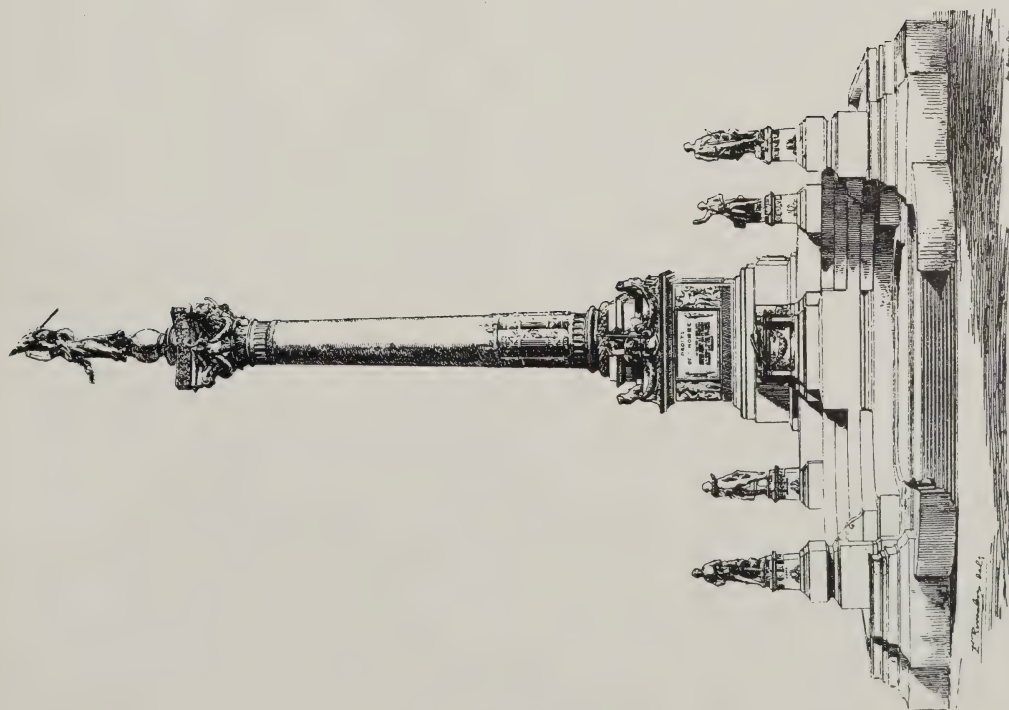


COLUMN OF THE TEMPLE OF PEACE
ROME

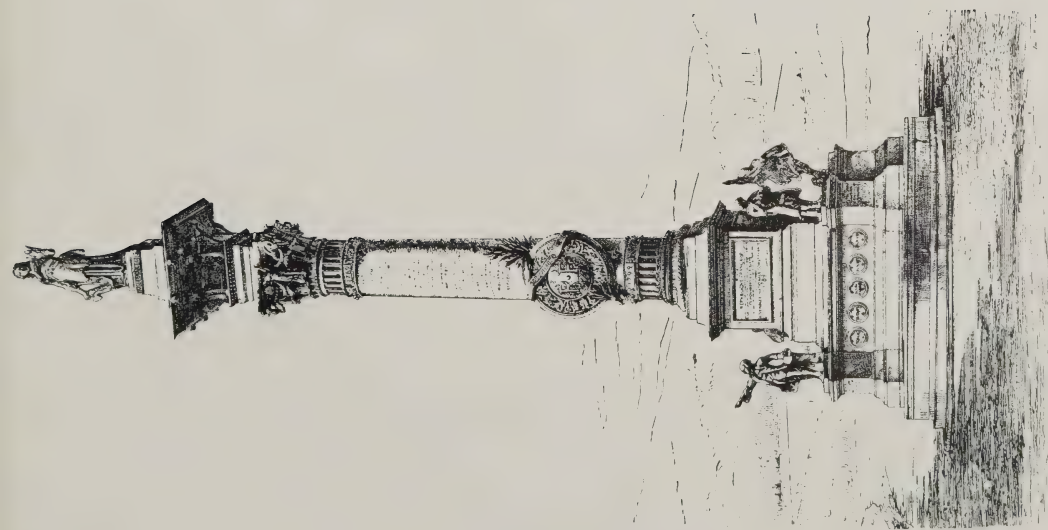
Design by M. Chancel (architect) and M. Sanzel (sculptor)



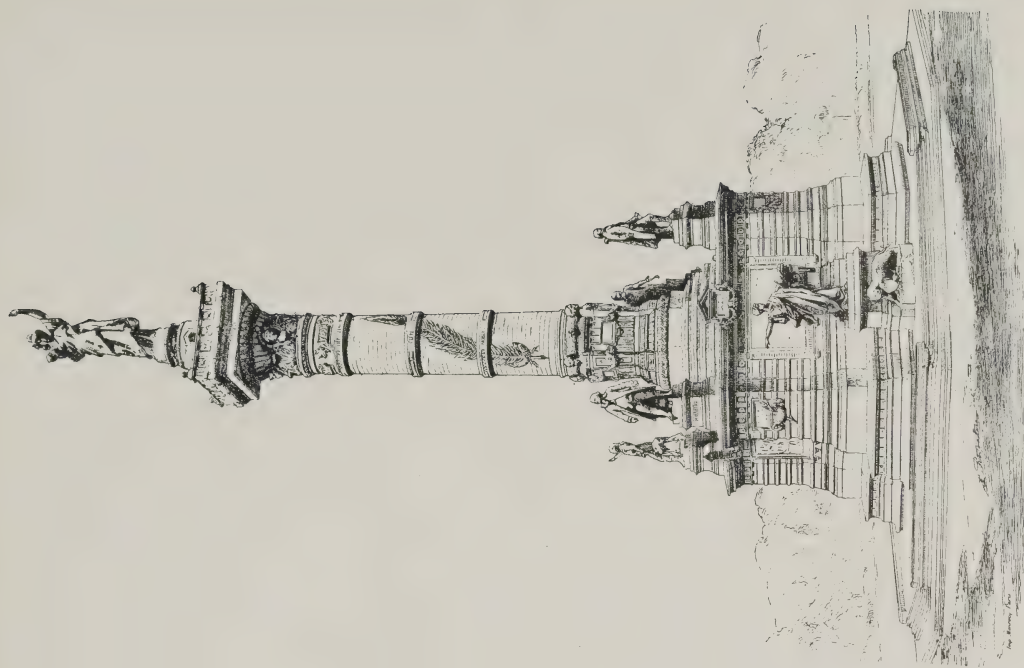
Design by M. Pujol (architect) and M. Falguiere (sculptor)



COMPETITIVE DESIGNS FOR A COLUMN TO THE REVOLUTION AT VERSAILLES

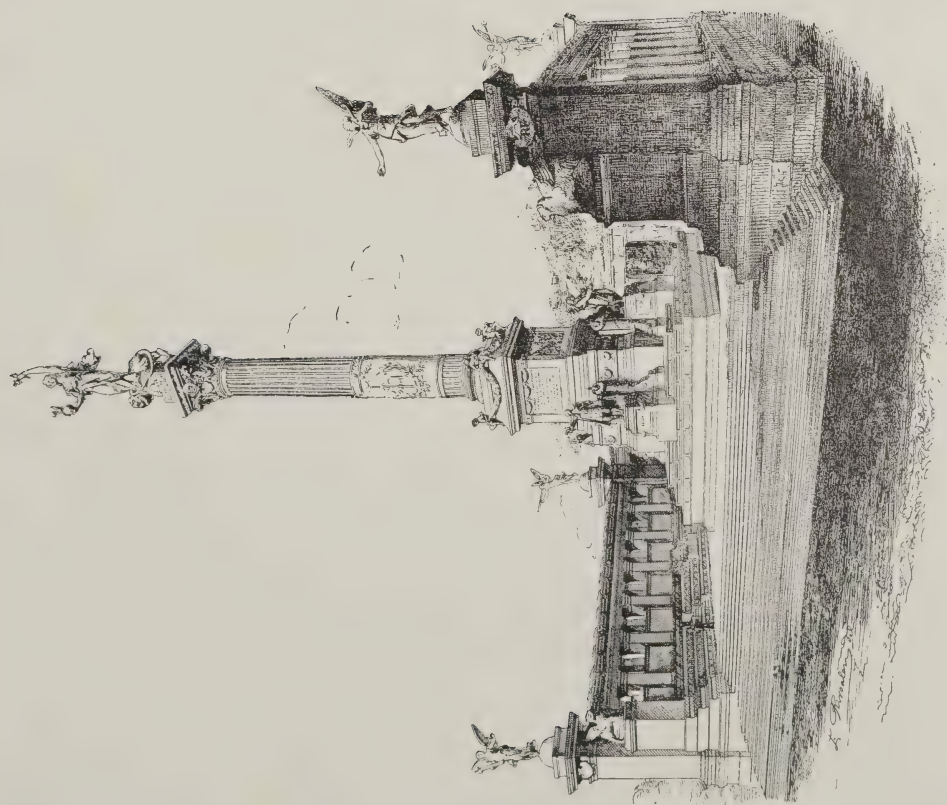


Design by M. Bernard (architect) and M. Granet (sculptor)



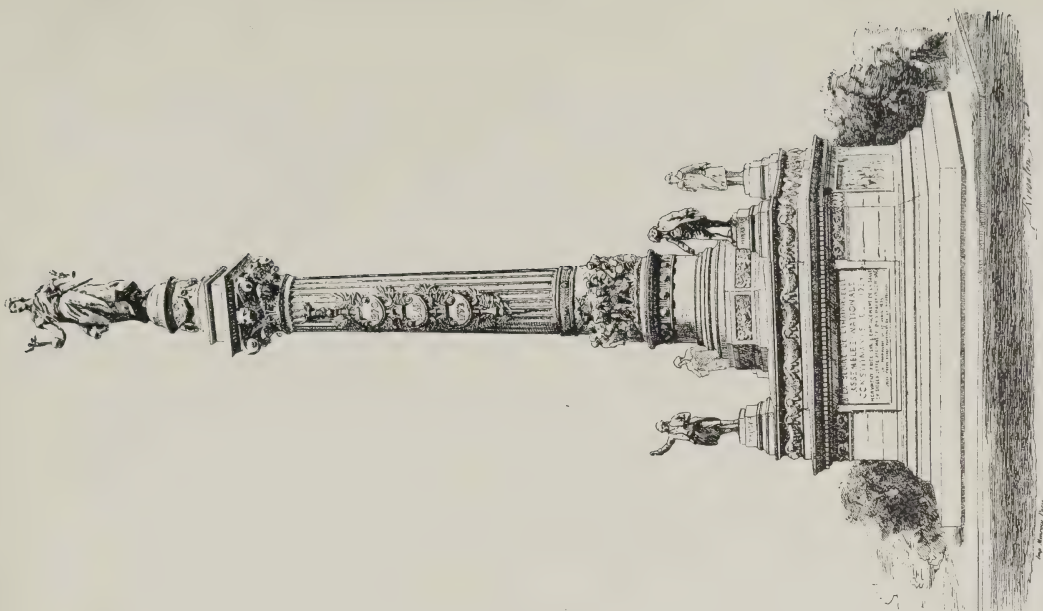
Design by M. Henard (architect) and M. Lafrance (sculptor)

COMPETITIVE DESIGNS FOR A COLUMN TO THE REVOLUTION AT VERSAILLES



Design by M. Formigé (architect) and M. Coutan (sculptor)

COMPETITIVE DESIGN FOR A COLUMN TO THE REVOLUTION AT VERSAILLES



Design by M. Train (architect) and M. Dalou (sculptor)

bury supporting a statue of Lord Hill. They are in the style of the architecture of the period, that at Liverpool and the Wellington Column, London, being Roman Doric, the others being Greek.

The pedantic correctness of these columns robbed them of much of the interest and originality seen in the early examples of the Greeks, and it was not until the Neo-Greek revival had set in that the column again received its full decorative value.

But previously to the Neo-Greek revival several columns were erected in Paris which, considering the period of their erection, were extremely original. Of such may be mentioned the twin columns which surmount pavilions erected on the site of the old *Barriere du Throne*, and which were designed by Ledoux in 1788, also the *Chatelet Column* erected in 1807 in the *Place du Chatelet*, and, later, the well-known column of July, 1830, erected on the site of the *Bastille*, and which clearly shows the early influence of the Neo-Greek movement in France.

During this Neo-Greek period quite a new conception of the possibilities of the monumental column arose, resulting in greater freedom of treatment. Now for the first time since the Greek period it becomes a decorated shaft. It is fluted, banded, rusticated, and festooned; palm leaves and bay leaves are carved entwined around its smooth hard surface and suspended are shields, trophies, and insignia of all kinds. Such was that designed by *Nenôt*, which was awarded first prize in the competition for the *King Humbert Memorial* at Rome. Examples of others which received prizes in the competition for a column inaugurated in Paris in 1881 to celebrate the *Constitutional Assembly* at *Versailles* are shown on plate 53. Besides the *Martyr's Monument*, *New York*, which is a very beautiful column, we have in America four others erected at the *Plaza* entrance to *Prospect Park*; they are enriched to one-third of their height with small shafts supporting eagles and an eagle on a ball surmounts the whole. These columns are from the designs of *McKim*, and in their strength and refinement bear evidence of his master hand.

In conclusion, the column used as the pedestal of a statue should be reserved for rare occasions, and to honour men whose distinction is exceptional.

In the early part of this century, when most of our modern columns were erected, they were set up almost exclusively to support the statues of naval and military heroes, in particular *Nelson* and *Napoleon*. This in itself has tended to justify us in the present day in associating statues on columns with naval and military men rather than with philanthropists or kings; and although the exclusive use of the column to support the naval and military hero has no foundation in ancient tradition, at the

same time its persistent use in this way early in last century is bound to carry with it associations from which we cannot easily get free.

In order to give some idea of the scale of the largest and best-known of existing columns, it may be mentioned that up to the top of the abacus, and not including the figure and its pedestal, the column of Trajan measures 115 feet; the Monument, London, 174 feet; the Vendome, Paris, 116 feet; the Napoleon, Boulogne, 141 feet, and the Wellington Column, London, 95 feet.

S. D. ADSHEAD.

BIRMINGHAM

City Extension and Town Planning

In the summer of 1905 a deputation of the Birmingham Corporation Housing Committee visited Germany to study Housing Reform and Town Planning, and came to three conclusions :—

1. The only way to stop the further creation of “modern suburbs” so dear to the speculator and so abhorrent to the general public was to get Town Planning legislation in this country.

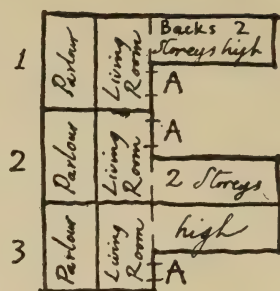
2. If and when Town Planning legislation were obtained for this country, then it must be administered on common-sense, business-like, give-and-take lines. The German tendency for “noble” streets everywhere and “beautiful” kerbs and gutters is all against Better Housing, and must not be copied in this country if we are to get even reasonably satisfactory results from Mr. John Burns’ epoch-making Act.

Estate development as known to-day is regulated by a system of rules known as the model bye-laws. This is an improvement on the old days when there were no regulations at all, but these regulations are now hampering estate development on the best lines by their lack of elasticity, by their excessive cost, by their attention to matters not important to health but very expensive, and by their insistence on expensive roads, which prevent the more desirable garden and open spaces. The model bye-laws are giving us perfect kerbs and gutters and excellent macadam, but very little else. Mr. John Burns, speaking on the Housing Problem many years ago, said, “Brains are better than bets or beer.” I think he would now say, “Business is better than bye-laws.”

If Local Authorities want only ten houses per acre, and one acre in every ten set aside for open spaces, they must make concessions in the cost of estate development, that is to say, allow narrower roadways, grass margins, and other economies in purely residential streets. If they don’t, then landowners and builders cannot make better housing pay, and unless better housing can be made to pay, we shall not get much of it. If, on the other hand, the economic effect of any Town Planning proposal is carefully considered, and if red tape gives way to common sense, we shall automatically get Better Housing. For instance, reduce the cost of frontage by reducing the cost of roadmaking, and more frontage can be allowed to each house, therefore making it commercially possible to build wider houses instead of the long narrow slips with tunnel backs (see sketch) now almost universal in our modern suburbs.

Sketch shows three houses out of a row. A A A are the windows of the principal living rooms in each house, and these look on to narrow tunnels sometimes even worse than shown here.

3. The third conclusion come to by the Birmingham Housing Committee's deputation in 1905 was that it would be hopeless to attempt the town planning of Greater Birmingham unless its municipal administration were unified.



The first of these conclusions was within the province of the Housing Committee, and in 1906 a report from them advocating Town Planning legislation was passed by a large majority of the Birmingham City Council. The second conclusion will be dealt with later on. To explain the third conclusion it is necessary to give a short history and description of the scheme for unifying Greater Birmingham, which received the Royal Assent on June 2nd.

As long ago as 1888 Mr. G. F. Chambers was sent to Birmingham by the Local Government Boundaries Commission, and suggested a city extension very similar to that now completed. He was ahead of his time, and the suggestion was not taken up as it ought to have been. Even then the idea was sound, and ought to have been carried out. Since then tramway developments have necessitated as well as facilitated city extensions. And now with Town Planning legislation and a progressive President of the Local Government Board, Local Authorities are indeed to be blamed who do not endeavour to unify where necessary the Municipal and Poor Law administration of large centres of population. The City Extension scheme suggested by Mr. G. F. Chambers in 1888 was rejected and a very much smaller scheme was carried through, which for reasons which need not be mentioned here did not apparently satisfy anybody; least of all the promoter. In 1907 the parish of Quinton (marked 2 on the map) was threatened by Worcestershire County Council with a very expensive drainage scheme, and in order to protect themselves from an intolerable burden the ratepayers of Quinton, led by their vicar, on the 9th of January, 1908, at a special parish meeting passed the following resolution:—

“That this parish meeting of the ratepayers and electors of the parish of Quinton, especially convened to consider this subject, is of opinion that the future well-being of the parish depends on its development as a part of the city of Birmingham, of which it is a suburb, and with which it is physically and industrially connected, and hereby requests the City Council of Birmingham to consent to the incorporation of this parish

into the Borough of Birmingham on such terms as shall be mutually agreed upon, and to take the necessary steps as soon as convenient to bring about such incorporation."

This gave Birmingham the long waited-for opportunity of getting to work by the scientific experimental method on a great undertaking which was bound to take some years to complete. Quinton wanted sewerage, and Quinton could not wait. If immediate action were not taken Quinton sewerage would be dealt with in another way. On the other hand, Birmingham had only to say "yes" to a willing suitor in order to get city extension on the move, and yet not moving faster than was wise. The city extension policy of "Quinton first and the rest later" was adopted by the Birmingham City Council in the summer of 1908. On November the 9th, 1909, Quinton was incorporated with the City of Birmingham. That success, although apparently a very small matter, greatly assisted the very much larger undertaking now completed.

Main Principles of City Extension

When settling what extension of a city's boundaries shall be attempted there are four main principles to bear in mind:—

1. Since the passing of the Housing and Town Planning Act, 1909, the old contention that no outlying district should be unified with the centre unless it can be proved to be urban in character no longer holds good. This Act has also given Parliamentary authority to the opinions of Mr. Cadbury, Sir W. H. Lever, and many other far-sighted business men interested in social progress on sound economic lines, viz., that no city



is really complete and satisfactory unless it has plenty of open spaces, playgrounds, playing fields, allotments, and also small holdings. These amenities are more important to public health and public welfare than hospitals, gaols, and asylums; and when we get more of them, very much less of the ratepayers' money will have to be spent or rather wasted on the punishment of crimes and the curing of diseases so largely due to bad environment. From this it follows that every city extension should include a considerable quantity of agricultural land.

2. Modern tramway developments have made five miles such an easy distance that any district within that radius from the centre is in all intents and purposes part of the main city. In London, with its tubes, this radius is considerably greater, but London is a special problem with which I do not deal. This mathematical theory of a five-mile radius must not be too strictly adhered to. There are other practical considerations that have to be taken into account, with the result that no extended city boundary is likely to be anything like a true circle.

3. The third main principle is a question of drainage. The old boundaries of Birmingham ran largely along brooks and watercourses, thereby involving constant disputes with neighbouring authorities on questions of drainage. The new boundaries run as far as possible along ridges, so as to bring what is all one drainage area under one local authority.

By this means a great deal of public money will be saved and better drainage provided. The two little bits marked "A" and "B" on the west side of the map were not taken into Birmingham because they will

TABLE I.

DISTRICT. 1	Area in Acres. 2	Population. 3	Rateable Value, March, 1911. 4	Rates (1910-11). 5	Produce of a 1d. Rate, 1910-11. 6	Loan Debt Outstanding, March, 1911. 7
(a) Birmingham ..	13,477	Census, 1911. 526,000	£ 2,970,553	s. d. 8 2	£ 10,875	£ 17,012,703
(b) King's Norton and Northfield (part) ..	13,214	*Estimates— 88,000	£ 416,114	7 0	£ 1,587	£ 439,120 whole area }
(c) Yardley	7,589	60,000	242,080	7 10	905	194,227
(d) Aston Manor ..	960	86,000	260,440	8 2½	991	665,222
(e) Erdington ..	4,630	34,000	152,466	6 10	574	120,250
(f) Handsworth ..	3,667	73,000	298,364	7 7	1,137	474,297
(g) TOTAL OF OUT-LYING DISTRICTS ..	30,060	341,000	1,369,464	—	5,194	1,893,116
Greater Birmingham ..	43,537 acres.	867,000 persons.	£4,340,017 Rateable Value.	—	£16,069 Penny Rate	£18,905,819 Loans.

* Census figures not available for out-lying districts.

have to be drained in an opposite direction to that of the Birmingham drainage area.

4. The fourth, and in many ways the most important main principle, is that, although it *may* be easier (I am not quite sure on this point) to govern a small city than a large one, nevertheless it is certainly easier to govern what is really all one city by single than by multiple control. It was this fact that persuaded Birmingham, after hesitating on the brink for 20 years, to undertake three years ago the task of endeavouring to unify the administration of Greater Birmingham.

Until next November the 9th, the municipal administration of Greater Birmingham will be as shown in Table I.

TABLE II.

PARISH.	PRESENT UNION.	Areas in Acres.	Population.	Present Number of Guardians.	Rateable Value to Poor Rate, March, 1911.	Precept levied on Parishes during year ended March, 1911.	No of Persons Chargeable 1st January, 1911. In-door and Out-door Poor and Lunatics.
1	2	3	4	5	6	7	8
1. BIRMINGHAM			Census, 1911.		£	£	
(1) Birmingham ..	Birmingham	2,996	526,000	36	1,692,981	147,111	7,034
(2) Aston	Aston ..	5,109		15	834,152	51,766	3,645
(3) Balsall Heath	King's Norton	454		4	145,084	9,240	1,159
(4) Edgbaston ..	King's Norton	2,598		5	230,901	13,880	199
(5) Harborne ..	King's Norton	1,482		2	63,171	3,860	145
(6) Quinton ..	King's Norton	838		1	4,264	110	12
TOTAL AREA ..	.. .. .	13,477	526,000	63	2,970,553	225,967	12,194
2. OUT-LYING DISTRICTS:—			Estimates				
(7) King's Norton	King's Norton	7,331	53,000	8	273,465	16,280	478
(8) Northfield (part)	King's Norton	5,883	35,000	3	142,649	8,130	498
(9) Yardley ..	Solihull ..	7,589	60,000	23	242,080	9,888	869
(10) Aston Manor ..	Aston ..	960	86,000	6	260,440	16,189	1,133
(11) Erdington ..	Aston ..	4,630	34,000	2	152,466	9,189	231
TOTAL AREA ..	.. .. .	26,393	268,000	42	1,071,100	59,676	3,209
TOTAL OF THE NEW PARISH OF BIRMINGHAM		39,870	794,000	Present 105 (Proposed 49)	4,041,653	285,643	15,403
Remaining Parish in the New Union of Birmingham:—							
3. SMETHWICK (at present in King's Norton Union)		1,929	70,000	Present 5 (Proposed 3)	279,650	18,040	1,539
TOTAL OF NEW UNION OF BIRMINGHAM		41,799	864,000	Present 110 (Proposed 52)	4,321,303	303,683	16,942
Note.—Handsworth (to continue in the West Bromwich Union as separate Parish for Poor Law purposes only)		3,667	73,000	10	298,364	17,580	696

Until next November the 9th, the Poor Law Administration will be divided as shown on Table II.

Greater Birmingham is the result of only human efforts and therefore imperfect. I will not enlarge upon all its imperfections, but there is one flaw that ought to be mentioned. Owing to an unfortunate concatenation of circumstances, and in spite of the most able, loyal, and energetic support from the Poor Law Unions as a whole, we have not yet got one City, one Union, which in the light of the latest expert opinion on this important part of local administration is essential to good Local Government. It is to be hoped that this and other flaws in our work may be corrected in the future. Tables III. and IV. are interesting as showing what has been already achieved.

The next point of interest is the estimated financial effect of Greater Birmingham on the pockets of the ratepayers of old Birmingham. Three years ago there was some opposition to city extension on the Birmingham City Council, and this opposition was principally due to the fact that the small city extension of 1891 had cost the ratepayers $2\frac{1}{2}$ d. in the £.

The Birmingham City Extension now completed has involved a very large number of conferences with the outlying District Councils and also with the County Councils of Worcestershire, Warwickshire, and Staffordshire. Birmingham's endeavour at all these conferences was to be fair to everyone and not over-generous to anyone. Because, although excessive generosity in one or another particular instance might have smoothed Birmingham's path on that particular occasion, it would have been grossly unfair to the many other partners in the amalgamation scheme that she was working for, and sooner or later the chickens would have come home to roost. These conferences were presided over in the early days by Alderman Sir George Kenrick, and later on by Councillor Brooks, to both of whom Birmingham owes a very heavy debt of gratitude for their courtesy, patience, tact, and firmness. And both of these gentlemen would wish me to say how much we all owe to the Birmingham City Treasurer's department for prompt and reliable information as to the ultimate financial effect on Greater Birmingham of the various proposals that were laid before them.

The total result of all these conferences and endless figures got out by the Birmingham City Treasurer's department is that in the opinion of our Finance Committee this City Extension of 1911, the largest ever attempted in England, will only put a burden of £16,600 per annum on the ratepayers of Greater Birmingham, which will be met by 1d. rate over the enlarged city as compared with a $2\frac{1}{2}$ d. rate for the very much smaller City Extension of 1891, when Balsall Heath, Harborne, Saltley, and Little Bromwich were taken in.

TABLE III.—THE EFFECT OF THE ACT ON LOCAL AUTHORITIES.

THE PRESENT POSITION.	THE FUTURE.
<p>(a) SIX LOCAL COUNCILS :—</p> <p style="padding-left: 40px;">TWO TOWN COUNCILS :</p> <p>1. The Town Council of the City of Birmingham</p> <p>2. The Town Council of Aston Manor ..</p> <p style="padding-left: 40px;">THREE URBAN DISTRICT COUNCILS :</p> <p>3. King's Norton Urban District Council</p> <p>4. Erdington Urban District Council ..</p> <p>5. Handsworth Urban District Council ..</p> <p style="padding-left: 40px;">ONE RURAL DISTRICT COUNCIL :</p> <p>6. The Yardley Rural District Council</p> <p>(b) THREE COUNTY COUNCILS :—</p> <p>7. Warwickshire County Council (part)</p> <p>8. Worcestershire County Council (part)</p> <p>9. Staffordshire County Council (part) ..</p> <p>(c) 10. THE YARDLEY BURIAL BOARD ..</p> <p>(d) 11. THE KING'S NORTON DISTRICT SMALLPOX HOSPITAL COMMITTEE</p> <p>(e) FIVE TRAMWAY AUTHORITIES (Nos. 1, 2, 3, 4, and 5, above).</p> <p>(f) THREE ELECTRICITY AUTHORITIES in operation (Nos. 1, 2, and 5 above. Nos. 3 and 6 are without supplies).</p> <p>(g) FOUR BURIAL BOARDS (Nos. 1, 3, 5, and 10 above).</p> <p>(h) SEVERAL JOINT SEWERAGE, ETC., COMMITTEES</p> <p>(i) SIX TOWN PLANNING AUTHORITIES .. (Nos. 1, 2, 3, 4, 5, and 6 above).</p>	<p style="text-align: center;">THE ONE ENLARGED TOWN COUNCIL OF THE CITY OF BIRMINGHAM.</p>

TABLE IV.—THE EFFECT OF THE ACT ON POOR-LAW AUTHORITIES.

THE PRESENT POSITION.	THE FUTURE.																																																
<p>TWELVE SEPARATE PARISHES AND OVERSEERS :—</p> <p>(a) In the present City—</p> <table><tr><td>1. Birmingham</td><td>..</td><td>..</td><td>..</td></tr><tr><td>2. Aston ..</td><td>..</td><td>..</td><td>..</td></tr><tr><td>3. Edgbaston</td><td>..</td><td>..</td><td>..</td></tr><tr><td>4. Balsall Heath</td><td>..</td><td>..</td><td>..</td></tr><tr><td>5. Harborne</td><td>..</td><td>..</td><td>..</td></tr><tr><td>6. Quinton ..</td><td>..</td><td>..</td><td>..</td></tr></table> <p>(b) In the added areas and the enlarged City—</p> <table><tr><td>7. King's Norton</td><td>..</td><td>..</td><td>..</td></tr><tr><td>8. Northfield</td><td>..</td><td>..</td><td>..</td></tr><tr><td>9. Yardley ..</td><td>..</td><td>..</td><td>..</td></tr><tr><td>10. Aston Manor</td><td>..</td><td>..</td><td>..</td></tr><tr><td>11. Erdington</td><td>..</td><td>..</td><td>..</td></tr><tr><td>12. Handsworth</td><td>..</td><td>..</td><td>..</td></tr></table>	1. Birmingham	2. Aston	3. Edgbaston	4. Balsall Heath	5. Harborne	6. Quinton	7. King's Norton	8. Northfield	9. Yardley	10. Aston Manor	11. Erdington	12. Handsworth	<p>THE PARISH OF BIRMINGHAM.</p> <p>{ Continued as a separate Parish.</p>
1. Birmingham																																														
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<p>(c) FOUR SEPARATE POOR-LAW UNIONS (with separate Assessment Com- mittees) :—</p> <table><tr><td>13. Birmingham</td><td>..</td><td>..</td><td>..</td></tr><tr><td>14. Aston ..</td><td>..</td><td>..</td><td>..</td></tr><tr><td>15. King's Norton</td><td>..</td><td>..</td><td>..</td></tr><tr><td>16. Solihull (part only)</td><td>..</td><td>..</td><td>..</td></tr></table> <p>(d) COMBINATION OF UNIONS :—</p> <table><tr><td>17. Birmingham, Aston, and King's Norton</td><td>..</td><td>..</td><td>..</td></tr><tr><td>(for epileptics' accommodation)</td><td></td><td></td><td></td></tr></table> <p>(e) FOUR ASSESSMENT COMMITTEES :—</p> <table><tr><td>18. Nos. 13 to 16 above</td><td>..</td><td>..</td><td>..</td></tr></table>	13. Birmingham	14. Aston	15. King's Norton	16. Solihull (part only)	17. Birmingham, Aston, and King's Norton	(for epileptics' accommodation)				18. Nos. 13 to 16 above	<p>THE BIRMINGHAM UNION,</p> <p>consisting of two parishes, Birming- ham and Smethwick.</p> <p>(With one Assessment Committee).</p>																				
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18. Nos. 13 to 16 above																																														

The particulars of differential rating granted to outlying districts are given in Table V.

TABLE V.—TERMS OF DIFFERENTIAL RATING.

No.	ADDED DISTRICTS.	ORIGINAL PROPOSALS FOR DIFFERENTIAL RATING.				DIFFERENTIAL RATES NOW GIVEN WHOLLY ON BOROUGH RATE.	
		POOR RATE, as arranged by the several Boards of Guardians and the City.		BOROUGH RATE, as reported to the Council in July, 1909.		Am't.	No. of Years.
		Am't.	No. of Years.	Am't.	No. of Years.		
1	2	3	4	5	6	7	8
(a)	KING'S NORTON AND NORTH-FIELD ..	2d.	10 years	1s. 2d. 1s. 10d. 8d. 6d. 4d. 2d.	First 10 years .. 11th and 12th years 13th and 14th years 15th year 16th year 17th year 18th year	1s. 8d. 1s. 2d. 10d. 8d. 6d. 4d. 2d.	First 10 years. 11th and 12th years 13th and 14th years 15th year 16th year 17th year 18th year
(b)	YARDLEY ..	6d.	15 years	Nil.	—	1s. 9d. 6d.	First 5 years 6th to 10th years 11th to 18th years
(c)	ASTON MANOR	2d.	10 years	Nil.	—	5d. 3d.	First 10 years 11th and 12th years
(d)	ERDINGTON ..	2d.	15 years	2s. 3d. 2s. 1s. 6d. 1s. 6d.	First 12 years .. 13th, 14th & 15th y'rs 16th year 17th year 18th year	2s. 5d. 2s. 2d. 1s. 6d. 1s. 6d.	First 12 years 13th, 14th & 15th years 16th year 17th year 18th year
(e)	HANDSWORTH	6d.	10 years Conditional on forming part of the new Parish of Birmingham, but cancelled by decision of House of Commons Committee, which leaves Handsworth in the West Bromwich Union.	Nil.	—	1s. 8d. 4d.	First 5 years 6th to 10th years 11th to 18th years

The financial adjustments agreed upon between Birmingham and the three Counties concerned are as follows:—

	£	s.	d.
Greater Birmingham to pay the County of Warwick ..	60,000	0	0
“ “ “ “ Worcester ..	140,000	0	0
“ “ “ “ Stafford ..	43,500	0	0
Total	£243,500	0	0

The net result of these financial adjustments with the Counties and the differential ratings granted to outlying districts being, as I said before,

ld. rate on the new city; and judging from public and private expressions of opinion, everyone is more than satisfied that Birmingham is not paying too much for her whistle. This is satisfactory, but even more satisfactory still to those who look ahead is the fact that at last, when the Greater Birmingham Bill was in committee of the House of Lords, and before it had been passed by that ancient assembly, all the hitherto contending local authorities came to a common understanding with one another and the Bill was reported to the House of Lords with the common consent of all the local authorities concerned. That was a great triumph for all of those responsible for the direction and execution of this great undertaking; unfortunately, these individuals are too numerous to be mentioned personally. This carrying of the Greater Birmingham Act by agreement is a happy augury for the future harmonious and efficient administration of Greater Birmingham.

Town Planning

As in City Extension, so in Town Planning, Birmingham is proceeding by the scientific experimental method. She has now nearly completed a little experiment on Harborne Tenants' Moor Pool Estate, which shall be dealt with presently. She also has in hand the preparation of two small Town Planning schemes: one at the west end of the city and the other at the east end. As these two schemes are now in course of preparation, and no details have yet been published, it is not possible to say much about them, but we can consider a few general principles.

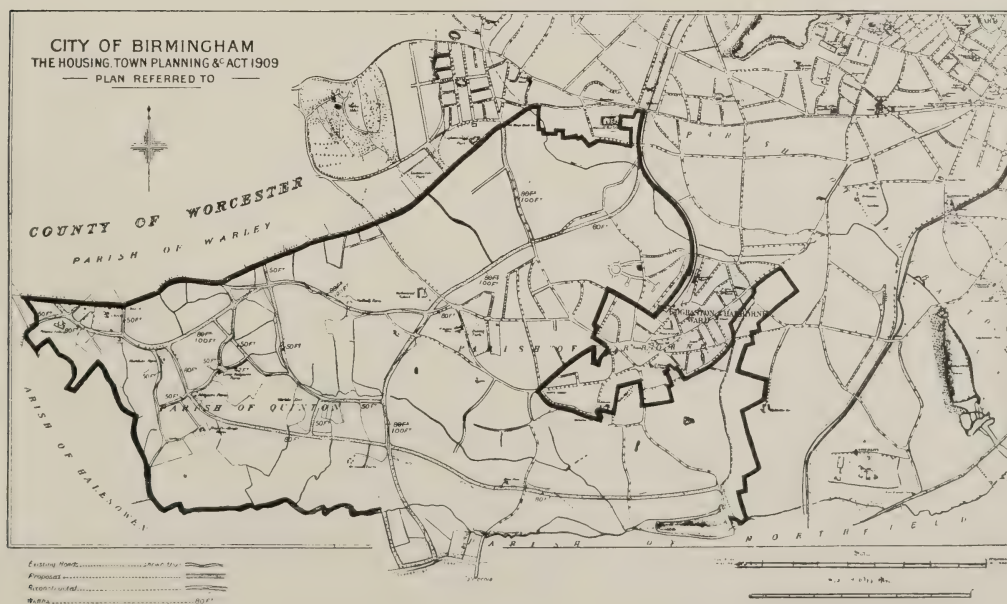
The success of Town Planning in this country depends upon:—

1. Complete co-operation between all concerned in the provision and supervision of housing accommodation. Neighbouring landowners must work together for their mutual benefit, instead of injuring each other, as has so often been the case in the past; and Local Authorities must recognise the fact that working men will not get, at the old rents, houses surrounded by gardens, allotments, playgrounds, and playing fields without charge to the ratepayers unless the old official bye-law methods are superseded by business-like give-and-take agreements between progressive landowners and enlightened public bodies.

2. The next essential to success is foresight in the provision of better communications by road, rail, tram, and water so as to bring more land into the market for building and other purposes. This will benefit the landowning class as a whole as well as the community. The price of undeveloped land now immediately adjacent to the limits of existing building will go down, but the price of other land farther out will go up, and the amount of land increased in value should considerably exceed that which is diminished in value.



EAST TOWN PLANNING SCHEME (OUTLINE HATCHED)



WEST TOWN PLANNING SCHEME (OUTLINE BLACK, NEW ROADS DOTTED)

In order to protect the amenities of undeveloped districts, they must not be opened up by roads and trams until a Town Planning scheme has been approved prescribing the number of houses per acre, open spaces, &c., &c. And last, but not least, the pockets of the ratepayers must be protected by advance purchases of sites for schools, baths, allotments, and other public purposes.

3. The third and perhaps the most important essential to success is elasticity. There must be elasticity in the carrying out of Town Planning schemes. We are dealing with land, a very variable commodity. It is up and down, and in and out. Some land is low and swampy ; no houses should be built on that. Other land is light and dry. On such land it may in some cases be wise to allow more than the usual number of houses per acre, provided open spaces adjoin it. In this and many other cases elasticity is essential to a successful Town Planning scheme. Some fear that elasticity will produce corruption : corruption exists already, and it is most difficult to prevent. The ways of its votaries are so devious. But the Housing and Town Planning Act, 1909, has provided a double check. On the one hand no concessions are to be made to landowners and builders in the cost of estate development unless they conform the modern ideas as to the proper number of houses per acre, &c., &c., and these concessions are all subject to the approval of the Local Government Board, an independent, impeccable body. On the other hand, public-spirited landowners and builders, willing to provide better housing, but obstructed by a local authority, have the right of appeal to London. If this double check is used, the corruption that now exists will diminish, not increase.

No Town Planning scheme will be permanently satisfactory unless it rests on a sound economic basis, and that can only be achieved by means of Co-operation, Foresight, and Elasticity.

It is now generally recognised by all independent students of the subject that the "Model" Bye-law system has hopelessly broken down. That system has produced, it is not too much to say necessitated, long monotonous rows of houses, much too close together, looking on to dreary deserts of macadam, and let at rents far too high for the lowest paid wage-earners. Most people blame the speculative builder. That is neither fair nor correct. It is the bye-law system that is at fault, not the speculative builder. He has three millstones round his neck :—

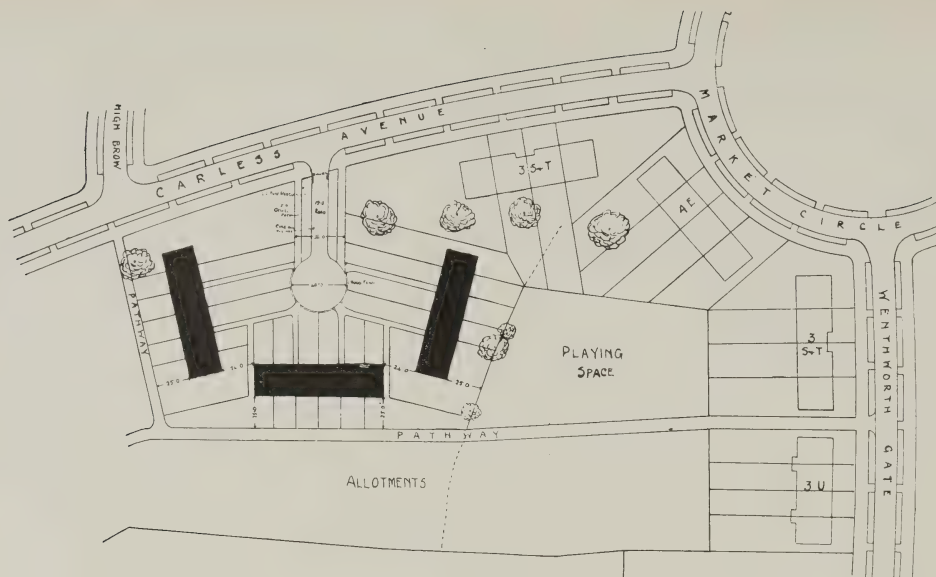
1. The landowner and his agent, and the land farmer, all trying to get the highest possible price for building land.

2. The "Model" Bye-law system, constantly demanding all sorts of unnecessary expenditure.

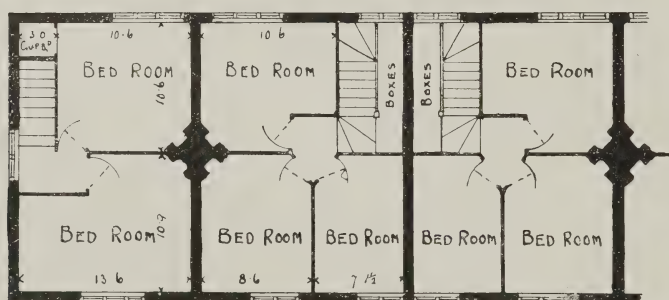
3. Customers who cannot afford more than 6s. 6d. per week.

The Housing and Town Planning Act, 1909, was passed in order to give landowners and builders a fair chance of providing their customers with what they require at rents they can afford. But unfortunately there is a tendency amongst English Town Planning administrators to use the new Act as a means of perpetuating and, indeed, adding to the old worn-out bye-law system. This tendency to adopt a Town Planning policy of "noble streets with beautiful kerbs and gutters" that has proved so disastrous to housing in Germany, is much to be deplored. Kerbs and gutters no doubt serve a useful purpose, but they are not the be-all and end-all of existence. Man cannot live on kerbs and gutters. Light and air are far more important to public health, as well as being much cheaper. I do not suggest that some main wide arteries are not necessary; quite the contrary, but side streets should be less expensively constructed, always provided the houses are kept far enough apart. The æsthetic aspect of town planning must also not be forgotten. But I repeat it again and again, the economic aspect is the most important of all. It is on our ability to deal with that side of the question that our success ultimately depends. It is no good building castles unless people can afford to live in them. And here is a fact generally forgotten. It is the rentpayers and ratepayers who eventually have to foot the bill for bye-law extravagance.

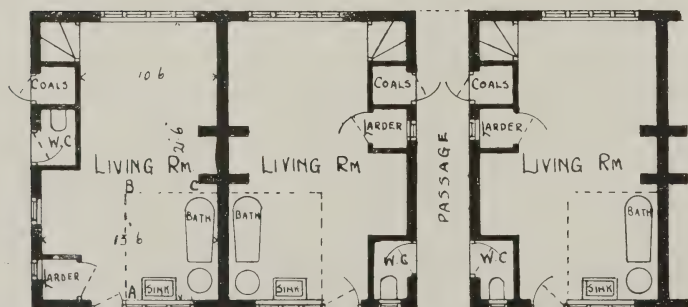
Municipal administrators think they have done well for the public when they have thrown expenditure on to the landowner or builder. They forget that these gentlemen have to make a living just like other people, and, therefore, always pass the charge on to the public. The money required for bye-law extravagance is not found by landowners and builders out of their own pockets; this liability has to be met by the tenants in their weekly rents. The extra cost of Bye-law Estate development over Town Planning Estate development represents about 9d. per week in the rent of a 6s. 6d. house. Some people fear that if Town Planning concessions in the cost of estate developments are made to landowners and builders, and these Town Planning roads and drives are taken over and maintained by the local authority, then there will be a rise in the rates. It is difficult to understand on what lines this fear is based. Town Planning Estate development means much less roadway to keep up—that is, a lower cost for upkeep, from which it follows that town planning will reduce not increase the rates so far as road maintenance is concerned, and incidentally the ratepayers get many open spaces without any charge on the rates. If the policy of permitting and taking over when completed narrow roadways with grass margins and sufficient but



PLAN OF PART OF HARBORNE TENANTS ESTATE
SHOWING TYPE OF DEVELOPMENT



FIRST FLOOR



GROUND FLOOR
4/- & 4/6 HOUSES AT HARBORNE ESTATE

not unnecessarily extravagant pathways in purely residential roads is adopted, then all classes will benefit, not only in their pockets, but also by having something pleasanter to look upon than the now discredited official bye-law street.

Town Planning Experiment at Harborne

Harborne Tenants' Moor Pool Estate is about 54 acres in extent, and when building is completed there will be about 505 houses in all, of which about 170 will be let at 6s. 9d. or less per week, including rates; and of these 170, 20 with three bedrooms each are now let at 4s. and 4s. 6d. per week each, including rates, and eight with two bedrooms, suitable for newly-married people, &c., &c., are let at 4s. each. These cheap houses are much appreciated by the tenants. The other day when one fell vacant there were 20 applicants. These houses produce a return on the capital expenditure involved quite up to the average return of the rest of the estate, and this result has been achieved by economy in road making (see plate 57). The inside accommodation provided is shown by the plans, in addition to which each house has its own garden and, of course, plenty of light and air.

When Harborne Tenants, Ltd., was started a large number of old-fashioned experts gave it three years to get into the bankruptcy court. It has taken just that time to make the concern an assured financial success. In 1908, the first full working year, the net profit, after paying interest and all other charges, was £100. 1s. 11d. In 1909 it was £310. 11s. 3d. And in 1910 it was £380. 13s. 5d. This financial success certified by auditors of the highest standing destroys the statement made by old-fashioned experts that for the working classes ten houses to the acre cannot be made to pay unless higher rents are charged. It has been made to pay by Harborne Tenants, and 4s. and 4s. 6d. per week compare very favourably with 6s. 6d. Under the old bye-law system for many years past no new houses have been erected for Birmingham working men at less than 6s. 6d. It is true that Harborne Tenants get their money much cheaper than the speculative builder. Put this advantage at 1s. per week on a 4s. house, and we arrive at the conclusion that, provided the speculative builder is treated fairly in the matter of land and bye-laws, he can give us ten houses to the acre with plenty of open spaces and make it pay, even if some of his houses are let at 5s. 6d. per week as against 6s. 6d., the lowest rent he has managed up to now. Space does not permit a longer description of the Moor Pool Estate. If anyone is interested the best thing he can do is to come and see.

Birmingham's Two Town Planning Schemes: "A Comparison"

The scheme in the west comprises 2,300 odd acres. The eastern scheme 1,400 odd acres. The western area is largely composed of agricultural land with few roads of any account. The area in the east, on the other hand, consists mostly of land more or less ripe for building, and well provided with through roads. In East Birmingham there is a public park which under the old system of land purchase (waiting till the price goes up) cost the ratepayers £400 per acre a few years ago. Whereas under the Town Planning Act a farm of about 80 acres not far from this park has recently been purchased by the Corporation (subject to the approval of the Local Government Board) for £140 per acre, and in the Harborne and Quinton area a farm of 131 acres has recently been bought by the Corporation (subject to the approval of the Local Government Board) for £60 per acre. Land in East Birmingham, next door to the limit of building developments, is now fetching before the roads are made £400 to £500 per acre on the old basis of putting bricks and mortar too thick on the ground. Land a quarter of a mile further out is worth about £300, and a quarter of a mile further still it is £150 to £200 per acre, which latter price combined with economical Town Planning estate development makes ten houses to the gross acre, and one acre in every ten set aside for open spaces, playgrounds, playing fields, and allotments, a sound business proposition.

In Harborne and Quinton* the landowners welcome the Corporation's town planning proposals because they want roads and trams to open up their land. In East Birmingham there are bitter complaints because building development is not allowed to continue in the "*dear*" old way. The Harborne and Quinton map shows new roads tentatively proposed at the Local Government Board Enquiry as to the necessity or otherwise of preparing a scheme; these are shown dotted. On the East Birmingham map it was not considered necessary to show any new roads. That is all I am able to say at present. Both schemes are now in course of preparation, and until they have been completed and approved by the Local Government Board, the Birmingham City Council, and Parliament, it is obviously impossible to go into details. The town planning of Greater Birmingham is a matter for the consideration of the new City Council, which does not meet until November 9.

J. S. NETTLEFOLD.

* The Western Scheme, see plate 56.

PARIS

Some Influences that have Shaped its Growth

Introduction

Paris affords us an example of Town Planning principles consistently applied to its growth during the last three centuries; it is, moreover, the strongest argument for bold foresight and drastic action in dealing with existing parts of a city and bringing them up to the continually increasing requirements of expansion.

It is above all as an illustration of efficient and wise street planning and monumental grouping of buildings that Paris is noteworthy: as regards the provision and linking up of open spaces and housing, she has little to tell us; but she has the merit of being the discoverer of the tree-planted street or boulevard, which is the parent of the modern parkway.

To deal adequately with three centuries of town planning work requires more space than the limits of a magazine article—the study of Paris, in fact, is so large a matter that it has called into being two institutions to deal with it, the Musée Carnavalet and the Historic Library of the City of Paris, forming as it were permanent civic surveys and records. It is the intention, therefore, of the present study to indicate several of the more important influences which have shaped the growth of the city rather than to attempt a resumé of its town planning history. Indeed, before one can describe the actual town planning, it is necessary to examine the natural and utilitarian growth which preceded it, so that nothing short of a complete history of Paris from the earliest times would give a reasonable explanation of the city as it exists to-day. The voluminosity of such a work is quite outside the limits of the “Review,” and if four dominating influences are selected, it will indicate at sufficient length the complex tissue of which the city of to-day is wrought.

This constitutes the chief charm of Paris: in no other city is the haphazard of natural unpremeditated growth so completely blended with studied artistic design. There is no formal and hard symmetry about it as one finds in so many American towns, and as must have existed in the colonial cities of Rome; nor is there a disconnection of formal units such as Athens and ancient Rome presented; but there is a charming balance between historic picturesqueness and conscious formality which is full of variety and interest. One explanation of this interplay of contrasting effects caused by the presence of so much historic picturesqueness in spite of three centuries of determined town planning, is to be found in the tenacity of all true Parisians to their historic past; they have almost

invariably made a point of preserving old buildings and putting them to new uses, and the same spirit of conservation has pervaded their planning. Haussmann is often quoted as the example of the ruthless destroyer of ancient beauty in the interest hygiene—in reality he was a careful and painstaking preserver of it, and his whole scheme for the completion of the Plan of Paris was dominated by historical considerations and respect for ancient usage.

Four Influences that have Shaped Paris

The four above-mentioned influences which have shaped the Plan of Paris divide themselves into two groups, the first utilitarian and of so-called natural origin; the second, artistic and conscious. The utilitarian features were (a) the original Cross roads or Grande Croisée, as it is called in Paris topography; (b) the successive rings of Fortifications. The artistic and conscious influences are not so easy to sum up in a few words, but the earlier (c) may be described as the Royalist Domination of the seventeenth and eighteenth centuries, leaving its mark chiefly in the form of Garden Design; and (d), the later might be included under the single name "Haussmann" if it were not that the work for which his name stands was really first suggested by the Committee of Artists appointed by the Revolution, and was definitely begun by Napoleon Buonaparte—roughly it may be called the street rectification of the Revolution period and 19th century, forming the logical completion of the Plan of Paris. The four might thus be stated:—

- (a) Grande Croisée.
- (b) Fortifications.
- (c) Garden Design.
- (d) Street Rectification and Logical Completion.

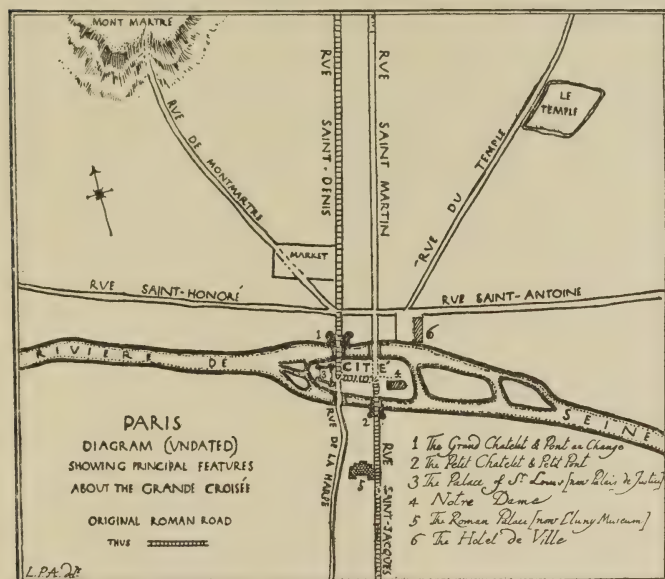
A.—The Grande Croisée

The original cross roads were the cause of the existence of the city. The main Roman road from the south to Britain and Belgium crossed the Seine at the point where several islands made the passage comparatively easy. The first road was not continued in a straight line across the islands and river, but was "joggled" on its way through the largest island. The Rue St. Jacques on the south bank* and the Rue St. Denis on the north* are on the exact line of the original Roman road. Quite

* In Parisian topography the North Bank is always known as the "Rive Droite," and the South Bank as the "Rive Gauche." As, however, most of the old maps read so that the right bank is to the left of the engraving, we have substituted for simplicity sake in each case "North Bank" and "South Bank."

early, however, it was duplicated for some distance on either side of the crossing, each portion being provided with a direct continuation; on the north the Rue St. Martin was exactly parallel with the Rue St. Denis, on

the south bank a less regular duplicate was made by the Rue de la Harpe and Rue D'enfer; these latter have both been absorbed in the modern Boulevard St. Michel; the other three remain intact. On the old plans of Paris (see plate 59) it will be seen that the St. Martin-St. Jacques route appears the more emphatic; in modern times the throttling of the St.



Jacques route and the wide opening out of the Boulevard St. Michel have changed the main current.

At a somewhat later date, but probably still during the Roman period, a cross road running along the north bank roughly parallel with the river intersected the twin roads and created the Grande Croisée. The original roads forming this were the Rue St. Honoré on the west and the Rue St. Antoine on the east.

It may seem somewhat needlessly antiquarian to describe these remote thoroughfares in connection with a city of to-day, but the fact remains that this diagram in the form of a letter H has continuously up to the present stood for the main currents of traffic in the city; it is, in fact, the heart of its circulation system. During the Middle Ages the east to west routes became hopelessly obscured in a maze of narrow streets at the crossing; the original twin north and south roads remained fairly intact, but the Rue St. Denis on the north was impeded by the Grande Chatelet, the fortress which straddled over the entrance to the Pont au Change, and the Rue St. Jacques was similarly strangled at the Petit Pont on the south by the Petit Chatelet. So important were these ancient routes considered that the "rectification of the Grande Croisée" was the

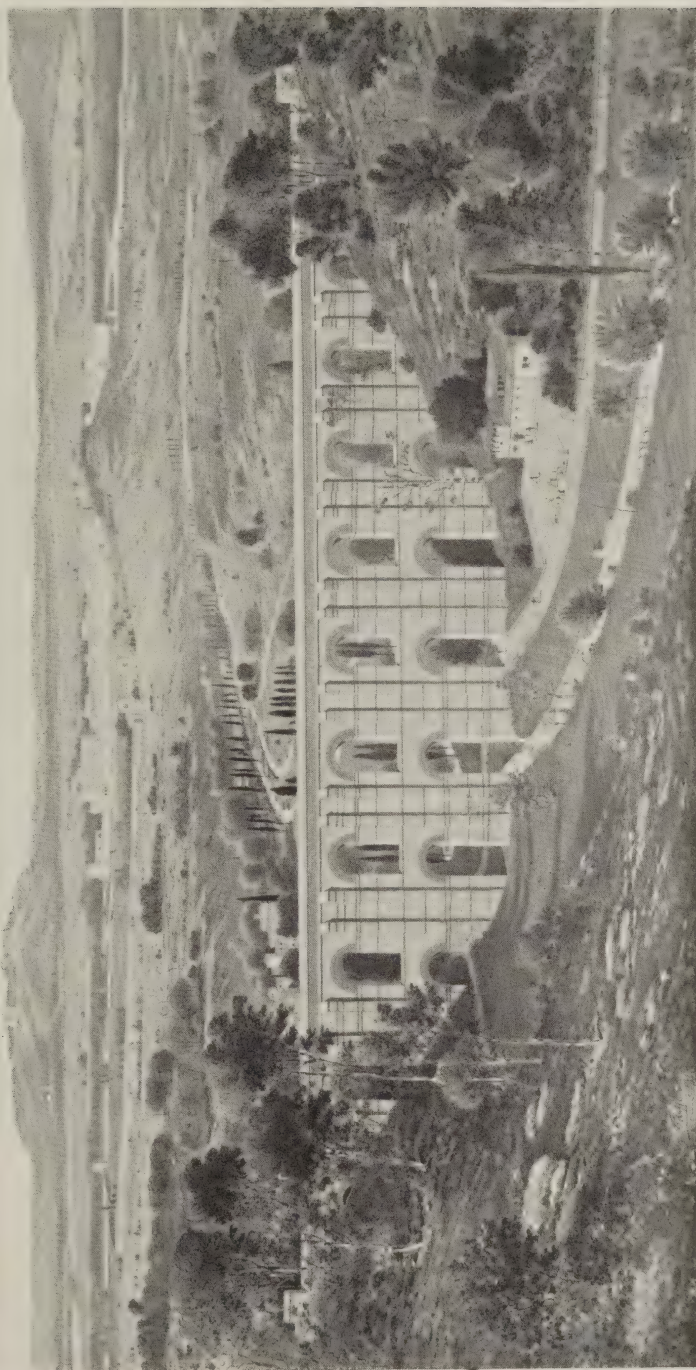
first great work which Haussmann undertook in his vast scheme of street rectification,* and it is noteworthy that one of M. Hénard's recent studies of Paris suggests the formation of another duplicate Grande Croisée in order to provide for the traffic, which is already becoming too great for Haussmann's rectified Roman crossing. Again, at this moment another small piece of rectification is being undertaken in the opening out of the "throttled neck" of the Rue St. Jacques in order that this branch may carry its share of the "Croisée" traffic, which has up to the present deserted it. It will then be seen that unlike Vienna, the Roman cross-roads have had such a vital effect upon the traffic plan of Paris that their obscurity has led to a careful restoration and amplification of the original scheme.

In addition to the main cross-roads there were two important diagonals on the north bank converging towards the Croisée, but one of them not quite reaching it. These were the Rue Montmartre, which ran from the Hill of Mars to Les Halles: it was probably of Roman origin, and may have been older than the east to west roads; if projected in its present direction across the Market Halls it would practically meet at an intersection of the Rue St. Honoré and Rue St. Denis. The other diagonal was probably of early mediæval date, and entered the corner of the Place de Grève (now the Place de L'Hotel de Ville). It is singular that these two original diagonals have never been widened or straightened up. As will be emphasized later, it was the consistent policy of Haussmann *not* to widen existing streets, but to cut new ones through built-up property. Old streets were swept away altogether as a result of the complete reconstruction of a district, but rarely widened. The Rue Montmartre and the Rue du Temple are two of the most characteristic busy pre-Haussmann streets of Paris.

B.—The Successive Rings of the Fortifications: The First Enceinte

On the main island that was traversed by this Roman road the original Paris came into existence. At first it was merely the huts of fishermen and ferrymen dependent upon the traffic, who formed themselves eventually into an organisation, the Nautæ Parisiacæ, or as they were later called the "Marchands de l'eau." By the third century Lutetia was an important Roman settlement, and its first ring of Fortifications was in existence at the close of the fourth century, fencing the main island, which became the Ile de la Cité. The palace, however, which was occupied by several Roman emperors, was situated on the southern or left bank on the site of the present Cluny Museum and garden. M. Hoff-

* It will be described later how this was done.



ROMAN LUTETIA RESTORED BY HOFFBAUER

PARIS



PLAN BY GEORGES BRAUN, CALLED "AUX TROIS PERSONNAGES"—CIRCA 1530
PARIS

bauer has made a restoration of the appearance of this first Paris, enclosed in gleaming white walls built of the local lime stone. Across the river to the left is seen the mountain of Mars, the present Montmartre. The hill on which the Pantheon stands, Mons Lucotitius, partly hides the Ile de la Cité to the right. Round this kernel Paris has grown, spreading itself out in concentric circles punctuated by four main subsequent girdles of walls, each as it has come to be demolished being incorporated in the road scheme and leaving its traces behind on the plan. At first these remains were fortuitous, but later it came to be realised that the demolition of fortifications gave easy and cheap opportunities for town improvement. To a town planner with a nose for archæology there can be few more interesting pursuits than following the trail of these vestiges and tracing the unconscious and conscious influences they have had on Paris of to-day.

The Enceinte of Philippe-Auguste

The second* enceinte was constructed during the reign of Philippe-Auguste, the Capetan king who undertook the third crusade in company with Richard Cœur de Lion. Its lines may be traced closely on the plan of Georges Braun (plate 59), engraved about the year 1530, forming the inner circle on the north bank. On this plan can also be traced remains of the fortification of the Ile de la Cité, on the lower extremity to the right. When this circle was made Paris had increased to about an equal extent on both sides. But henceforward the left bank, which in Roman times had been the more important, was outgrown by the north, owing probably to the existence of the main cross-road on this bank. The city was now divided into three parts, that on the north bank the Ville, on the island the Cité, and on the south the Université.† The Royal Palace with its garden was situated on the western extremity of the Ile de la Cité, where the Palace de Justice now stands, but more important still to the king was the position of the royal castle of the Louvre, just at the point where the northern wall touched the river at its western extremity. The position enabled the king to be in and out of Paris at the same time, a sort of symbol of the relationship which has existed from the earliest times between the Kings of France and their capital.

This enceinte has had less influence on the plan than the subsequent ones. On the north bank hardly a trace remains, with the exception of two insignificant streets, the Rue J. J. Rousseau and the Rue Tiquetonne, the

* There actually did exist an enceinte between this and the Ile de la Cité, but its importance to Parisian topography is so slight as to be negligible.

† To-day the area enclosed by this wall is known as the Quartier Latin.

latter representing the section between the Rue Montmartre and the Rue St. Denis and the former between the Rue Montmartre and the Louvre. The interest of these is purely antiquarian. On the south bank, owing to the fact that they remained the only fortifications on this side until the 17th century, traces are much more evident. In the plan of Abbé Delavigne, dated 1737, their complete course can be followed, and it is scarcely more obscure to-day. For the most part, however, these streets are narrow and structurally unimportant, with the exception of the Rue Mazarine, which runs obliquely from the back of the Institute on the Seine to the modern Boulevard St. Germain.* It is also interesting to note that in connection with a proposed opening out of this part (one of the fragments of Haussmann's work left incomplete), M. Hénard has suggested a new road cutting across this fortification street with a small open space at the intersection, near where there still exist remains of Philippe-Auguste's Wall, which might thus become disencumbered of surrounding buildings.†

The Third Enceinte, with its Extension

The third Ring, however, was of the utmost importance to the plan of Paris. It was begun about 1356 under remarkable circumstances during the temporary Republic under the leadership of Etienne Marcel, while Jean II. was a prisoner in England. The line is shown on the map reproduced on plate 59, though it was probably not so nearly approaching to a continuous curve. Only the Ville on the right bank was enclosed and the Louvre was included within the town, with the idea probably of keeping a stricter watch on the King should he come back. Before Etienne had completed these fortifications, he was assassinated, and the work was carried on by the new King, Charles V., after whom this ring is generally called. These fortifications, like the earlier, consisted of walls and towers, with tower gateways at the approaches to the principal streets; there was also a continuous moat. To quite the enclosure of the Louvre, Charles V. built a new and larger fortress at the opposite end of the town, and in precisely the same relation to it, which he named the Bastille. Within the new area of the Ville were included many great religious properties, including the Cluniac priory of St. Martin-des-Champs and the Temple.

This enceinte remained intact until about the period when the plan of Georges Braun (plate 59) was engraved, 1530. Shortly after this the growth of the St. Honoré quarter (to the bottom of the map) suggested

* This street is probably rather parallel to than on the exact site of the wall.

† See "Town Planning Review," No. 2, volume 1, page 170, and plate 62.

E



W

PLAN BY MATHEW MÉRIAN—1615

PARIS

Z

to François I. an extension, which, starting from the Porte St. Denis, would take a wider sweep to the river. The extension was begun in the old style with wall and towers, and probably completed by Charles IX. (1560-74), after whom it is generally named.

During the reign of Louis XIII., however, the method of fortification was revolutionised by the introduction of the triangular Bastion, Fosse, and Glacis. The whole of the northern enceinte was thereupon reconstructed exactly as it is shown in the plan of Mathieu Merian (1615). The short section of the Charles V. enceinte, which was rendered useless by the extension, was left as a picturesque feature, and it was not thought necessary to bring the ancient fortifications of Philippe-Auguste on the left bank up to date. By this time a new Palace had been built, called after some old tile fields, the Tuileries. It consisted of a long straight block just outside the wall of Charles V., with a large forecourt garden between it and the extension; in fact, the extension was probably largely undertaken to protect the palace, as the St. Honoré district was by no means built up at the time. The Tuileries has always been connected with the Louvre by a long corridor facing the Seine.

Hardly had these Fortifications been completed but they fell into disuse. The profound internal peace of the reign of Louis XIV. rendered the fortifying of Paris unnecessary. The town, however, was still cramped within the enclosing girdle, the great amount of space occupied by the religious and royal establishments congesting the dwellings of the ordinary inhabitants. The result was that these Bastions or Boulevarts (as they were called, the word being of similar origin to our Bulwark) became used as a sort of promenade and recreation ground for the inhabitants. Particularly that one near the Bastille, which was always known as the Grand Boulevart, and was planted with rows of trees. At this point a new element enters with the growth of Paris. Hitherto it may have been said to have been unconscious, but now the consideration of the town as a whole and the provision for the welfare of its inhabitants was consciously aimed at. It is true that already during the first few years of the 17th century Henri IV. had laid out the Place des Vosges (originally Place Royal), and by having a continuous architectural treatment carried round it had set the note for the future treatment of Parisian Public Places; but this was an isolated piece of combined architecture, and no attempt was made to connect it with the street plan of the town (in fact, to this day it remains an isolated unit).

The new element consisted in the proposal to put the unnecessary fortifications to a new use, and to treat them in a general scheme for the whole town.

To Bullet and Blondel, Louis XIV.'s architects, is due the credit of

this first piece of comprehensive Parisian Town Planning. Their plan, published in 1676 (plate 61), shows the fortifications levelled and a continuous tree-planted street projected to encircle the town. On the right bank this scheme succeeded admirably. But hereby may be demonstrated the great service which fortifications have rendered to the continental town-planner : on the right bank where the third enceinte existed the concentric planning was a simple affair. On the left bank the absence of a corresponding guiding line produced a confusion of arrangement which has never thoroughly been cleared up, in spite of one brilliant correction of Haussmann's.

Bullet and Blondel made the mistake of the rash Town Planner by projecting a ring on the left bank symmetrical with the right, not taking into consideration the fact that the absence of a second line of fortifications on this side showed a corresponding need for a smaller circuit. It is true they were right to reject the line of the old inner fortifications exactly as they existed, as they were no longer related to the north bank. It will be seen, however, by reference to plate 61, that they actually did end up at the eastern extremity (see A) along the line of Philippe Auguste's enceinte, thereby in this particular departing from the symmetry of their scheme.

A revised edition of their plan appeared in 1710, and it probably indicated what had been carried out during the intervening 34 years ; the northern circuit is practically complete, but on the south side only three isolated fragments of the section B (plate 61) have been attempted (eventually to form the Boulevard Mont Parnasse, and to be part of an exterior ring on the south side) ; and, curiously, the beginning of the eastern end, which instead of being at A (plate 61), as originally designed, is shown opposite the Bastille extremity of the northern circuit. But the sweep of this southern circuit was too wide for practical town planning at that date.

To return to the north bank, the tree-planted avenues projected by Bullet and Blondel in 1676 have been carried out in their entirety, and form the interior ring of this part of Paris to-day, now called the Grands Boulevards, though originally they were simply called "Cours," or Drives. For some reason or other the Bastions near the Bastille were not destroyed, and the large one was called the Grand Boulwart de la Porte St. Antoine ; this can be seen on the section of the later edition of Bullet and Blondel's plan reproduced on plate 62, with the levelled portion near the Porte St. Martin. Gradually this name extended to the other "cours," though the bastions or boulevarts had long been destroyed. These boulevards were carried out with two double rows of trees towards the town and a light wall towards the country, with barriers where the roads passed out



PARIS
BULLET AND BLONDEL'S FIRST MAP SHOWING PROJECTED BOULEVARDS—1676

S



W

EASTERN SECTION OF BULLETS AND BLONDEL'S MAP-1710

Showing Tree-planted "Cours"

PARIS

N

for the purpose of collecting tolls. The more important streets were given gateways—the Porte St. Denis and the Porte St. Martin still remain,* though the light wall has disappeared.

It is interesting to note that the use of the Grands Boulevards has undergone a change. Originally formed as a public promenade and continuous parkway round the city, they have gradually become identified with the circulation system, so that though they are still eminently promenades, they can no longer be considered as parkways, and with the Grande Croisée (as modernly rectified) they sustain the heaviest share of Paris street traffic.

The Parisian Boulevards have never been used for the stately grouping of Public Buildings as the Ring Strasse of Vienna, but as a world-famous promenade they are perhaps the most characteristic feature of Parisian life, and it is notable that they are the first of her series of town planning works.

The town planning antiquary will hunt for signs of the Charles V. wall which was superseded by the Charles IX. extension ; these may be traced in the two narrow parallel streets which run from the Porte St. Denis on the Grands Boulevards to the Place des Victoires, the Rue de Clery, and the Rue d'Aboukir, formerly the Rue des Fossees Montmartre.

So concludes the third and rather complicated section of Fortification History, which may be summarised as the enceinte of Charles V., its extension by Charles IX. to include the St. Honoré quarter, the reconstruction of the fortifications by Richelieu, and their levelling and turning into tree-planted walks under Louis XIV. to form the Grands Boulevards of to-day. The south bank was not effected, but its planning left in a considerable muddle, which was not simplified by the foundation of two important buildings, the Invalides and the Ecole Militaire, both furnished with avenues leading up to them without relation to the rest of the street plan.

The Fourth Enceinte, the Mur d'Octroi of Louis XVI.

The fourth enceinte was in no sense a fortification ; it was a tariff wall built in 1784 in order to collect tolls on farm produce entering the capital. Being no more than a tax gathering convenience, it had none of the broad simple lines of a fortification, but zig-zagged to and fro so as to include as much of the built-up town as possible within its lines. This enceinte enclosed the whole of the Champs Elysées and the Avenue as far as the Arc de Triomphe, the Parc Monceau, the Place du Trone (now Place de la Nation), the Halle aux Vins, and Jardin des Plantes, the Luxemburg Gardens, the Invalides, the Champs de Mars, and the site of

* See "Town Planning Review," vol. 2, No. 1, plate 13.

the Trocadero ; outside the boundary to the north lay the hill of Montmartre and on the north-east the Parc des Buttes Chaumonts and the Père Lachaise Cemetery. It is rare that the visitor to Paris to-day penetrates beyond this line, the space intervening between this and the last enceinte being the least known part of the town, and containing few important buildings.

When the wall was built a tree-planted boulevard was made on the outside throughout its tortuous length, and "Barrières" were erected as toll gates at each of the numerous street openings. Several of these remain to-day, as the Barrière of the Place de la Nation and Place Denfert ; they can be recognised by the curious Greek style in which they are built.

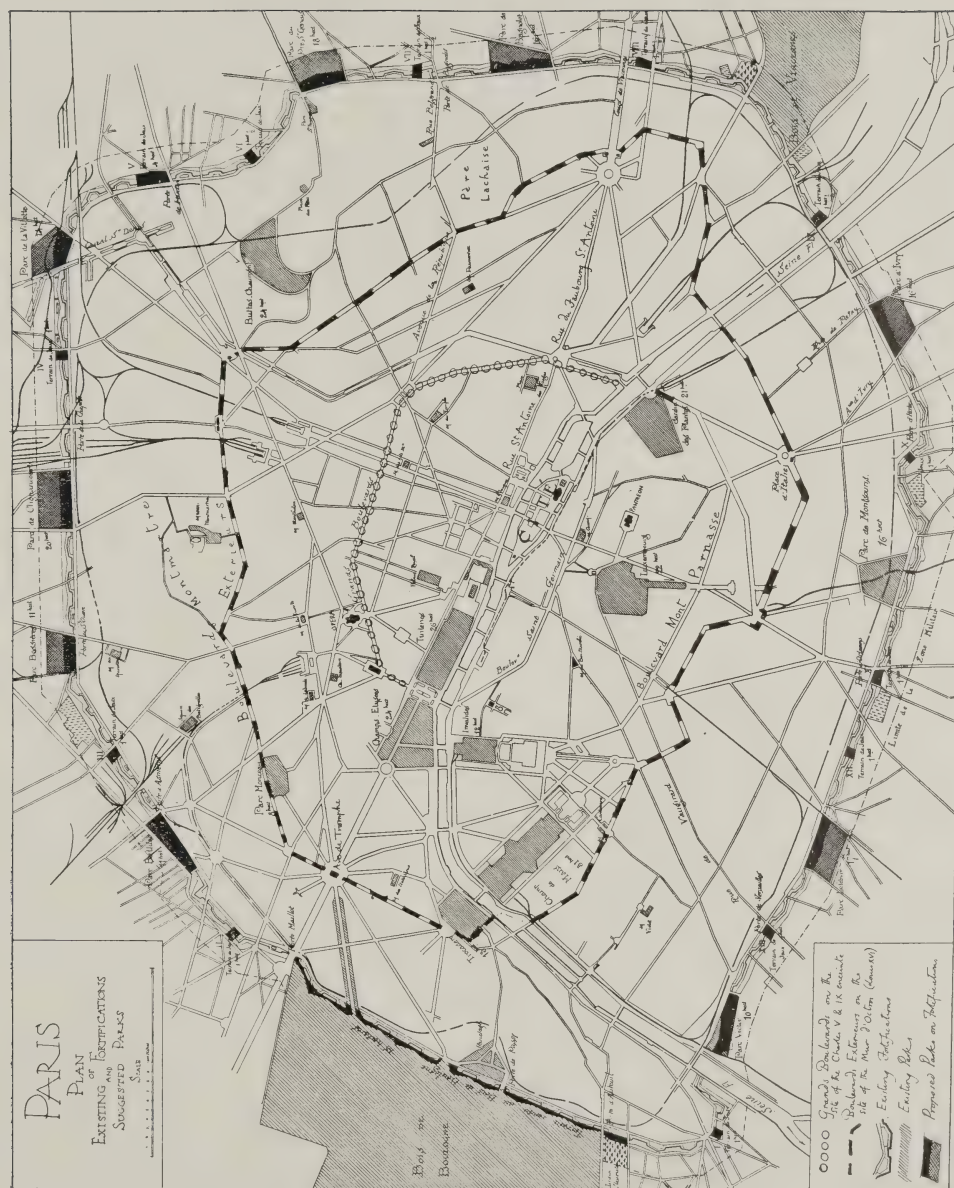
The line of this enceinte exists exactly to-day in the Boulevards extérieurs, the best known of which are these on the north, the Boulevards des Batignolles, de Clichy, de Rochechouart, de la Chapelle, &c. Their somewhat aimless wanderings would be hard to account for if it were not for the Mur d'Octroi and its desire to include any property that might bring in tolls. On the south side the line helped further to complicate the planning, and at one point (the present B. Edgar Quinet) it runs parallel and quite close to the Boulevard Mont Parnasse, which, from a town planning point of view, should have been incorporated in this ring of Boulevards extérieurs, but, as already stated above, the enceinte was put up for very different purposes.

The Octroi wall was removed by Haussmann.

The Fifth Enceinte, the present Fortifications

The existing Fortifications were begun in 1841 and further extended in 1871. It will be seen from the plan (plate 63) that the Ile de la Cite still forms approximately the centre of this enclosed area. Just within this enceinte runs the Paris girdle railway, the Chemin de fer de Ceinture. At the east and west extremities of the original cross-roads, outside the fortifications, are situated the two great wild parks of Paris, the Bois de Boulogne and the Bois de Vincennes. As at present existing this Girdle consists of four parts, a continuous inner Boulevard, a series of Bastions, a fosse or ditch, and a glacis or zone militaire, which though private property is subject to a "servitude" preventing any building being erected upon it for a space of 250 metres from the face of the ditch.

As these Fortifications exist to-day they can hardly be said to come under the heading of town planning, but the question of the treatment of the space they occupy has caused an awakening of public interest in town planning as keen as existed in Haussmann's time. Apparently it was suggested that the Fortifications should be demolished, the part belonging to the State sold, and the "servitude" automatically removed



PLAN SHOWING LINE OF LOUIS XVI. WALL (Dotted)
PRESENT FORTIFICATIONS AND SUGGESTED PARKS

PARIS

from the zone militaire. By this means Paris would have lost her time-honoured occasion for a piece of town planning. Fortunately public feeling was roused, largely under the desire for the provision of open spaces ; it was felt that the existing fortifications with their zone militaire formed a fine ring of air round the city, and however untidy, it was at any rate a magnificent playground, and to lose this opportunity would be a lamentable retrograde from her traditions. Many different suggestions have been made : plate 63 illustrates one put forward by M. Hénard for a series of separate parks and playgrounds, which would be connected together by the boulevards, possibly enlarged. The rest of the area would be sold for building purposes. Another suggestion proposed to sell the actual fortification strip (140 metres wide) and procure the military zone as a continuous parkway (250 metres) bordered on both sides by boulevards. Yet another advocated by the "Ligue pour les espaces Libres" (the society which has been responsible for the raising of this public indignation) combines these other two suggestions : ten parks in somewhat similar positions to M. Henard's occupy the full width of bastions and zone militaire, the intervening spaces, like the second proposal, consist of continuous park strips on the outer line, the inner strip to be sold for building, but only in "open order" for houses with gardens. The park strips would largely be laid out for gardens ; a circular boulevard would run through the parks and between the park strips and the "open building" areas. The Bois de Boulogne and the Bois de Vincennes would then be joined on both sides of the city with a continuous parkway, and a circular Boulevard arrangement would form a fitting third to the two already existing rings.

P. ABERCROMBIE.

(To be continued.)

ROMFORD GARDEN SUBURB, GIDEA PARK

Cottage Exhibition and Town Plan

The conversion of Gidea Park—an historic estate—into a suburb of London furnishes us with yet one more example of what must necessarily happen in the case of scores of similar properties situated in the confines of our large towns. Sir Herbert Raphael, into whose hands the estate has recently passed, decided to develop it as a residential suburb for the middle class on approved Garden City lines. The rapidity with which the development is proceeding, and the promise which is assured of its early and complete success, is deserving of particular notice.

It is no philanthropic undertaking, and we are not aware that there exists any idea of its ever being regarded as such ; instead, rather, it is a commercial venture, embarked upon with an enlightened sense of what ensures permanent success.

The essential idea underlying the scheme was to have the estate planned in accordance with the latest Garden City principles, and dispose of sites with restrictions of a well-considered æsthetic kind. To commence with, several roads were laid out in the immediate vicinity of Gidea Hall, and competitions were inaugurated, both for houses to be erected on sites adjoining these roads, and also for a town plan of the remainder of the estate. Valuable prizes were offered for the best houses, classed according to cost and accommodation. Class 1 was for a detached house to cost £500, the first prize being a gold medal and £250 and the second prize £100. Class 2 was for a detached house to cost £375, the first prize being a gold medal and £200 and the second prize £100. Class 3 was for the best internally-fitted house in Classes 1 and 2. Prizes were also offered for a plan of the estate, for a garden design, for a house or cottage under Classes 1 and 2, for a perspective drawing illustrating a cottage, for excellence of workmanship, for furnishing, for improvements in materials, and for improvements in fittings. As a result some 120 architects came forward prepared to take sites and erect houses with the inducement of having their work well exhibited, on the chance of obtaining a prize and in anticipation of eventually effecting a sale. The architects who thus entered were no doubt in most cases financed by builders who actually took all risks.

The judges were fairly representative of the recognised domestic architects of the day, though conspicuously absent from the list are the names of Mr. Lutyens and Mr. Ernest Newton. Following the completion of the 120 odd houses an exhibition of these has been inaugurated. It



HOUSES FACING REED POND WALK

By Mr. Baillie Scott



GEORGIAN HOUSES FACING HEATH DRIVE

By Mr. Ronald P. Jones



GROUP OF HOUSES IN THE PARKWAY

was opened under the most favourable auspices by Mr. Burns, and every facility for the citizens of London to view the exhibition has been afforded, a special train running daily from Liverpool Street Station to Squirrels Heath, the new local station, which is situated some two or three hundred yards from the estate. In order to advertise the movement a book has been published, "The Hundred Best Houses," giving particulars of the estate, its history, how to view it, how to get to it, and everything connected with it, at the same time giving plans and views of all the houses as well as an interesting correspondence on the subject of the modern house, contributions to which have been received from men of eminence of such diverse attainment as Mr. Arnold Bennett, Mr. Thomas Hardy, Mr. H. G. Wells, Sir Frederick Treves, Sir Hiram Maxim, and Sir Arthur Pinero—a list of names sufficient in itself to excite widespread interest.

But it is not only with the means of promotion that we are interested ; we have here a collection of small houses erected in close association and in competition with one another. We have also a collection of examples of English domestic architecture, representing its latest tendencies.

The result proves to us that to juxtapose a street of cottages, even though a very high level of architectural merit be individually attained, all in competition with one another, necessarily produces an effect which, if not exactly "higgledy-piggledy," is, at anyrate, abnormally picturesque. One feels that there is a lack of continuity and repose such as characterises work developed on more normal lines ; as, for instance, is to be seen in the Burnage Garden Suburb, the Ilford Garden Suburb, or in much of the work of the Co-partnership Tenants. One's eyes rest with considerable contentment on the row of Georgian houses which face the Heath Drive, and where the only example is to be seen of a continued trend of thought. As stated in the catalogue of the exhibition, these houses were designed to carry out a suggestion made by Professor Reilly in the paper on the City of the Future which he read at the Town Planning Conference last October.

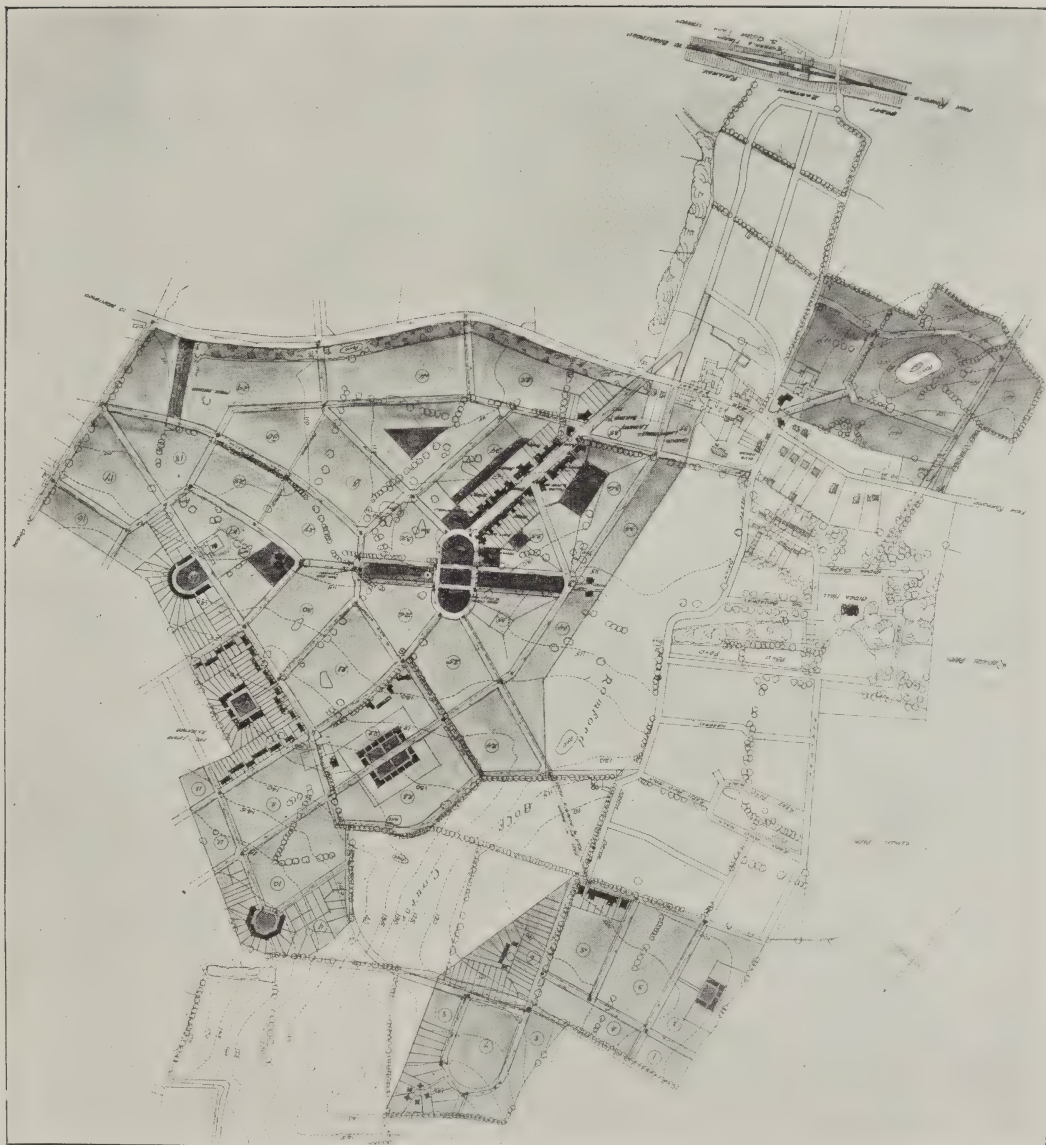
With the exception of this group all the rest of the houses have been designed in what may be described as the English cottage style—a type of house which, we may remind our readers, was originated by Mr. Norman Shaw, and carried a step further by Mr. Lutyens and others, and which really aims at reproducing the domestic architecture of the 16th and 17th centuries.

One cannot help feeling that the later periods of domestic architecture are more amenable to the introduction of features which are necessary to modern existence, and it is a fact that those architects who have honestly persisted in reproducing the 16th century character most truthfully, and who have really caught the spirit of the past, have been least

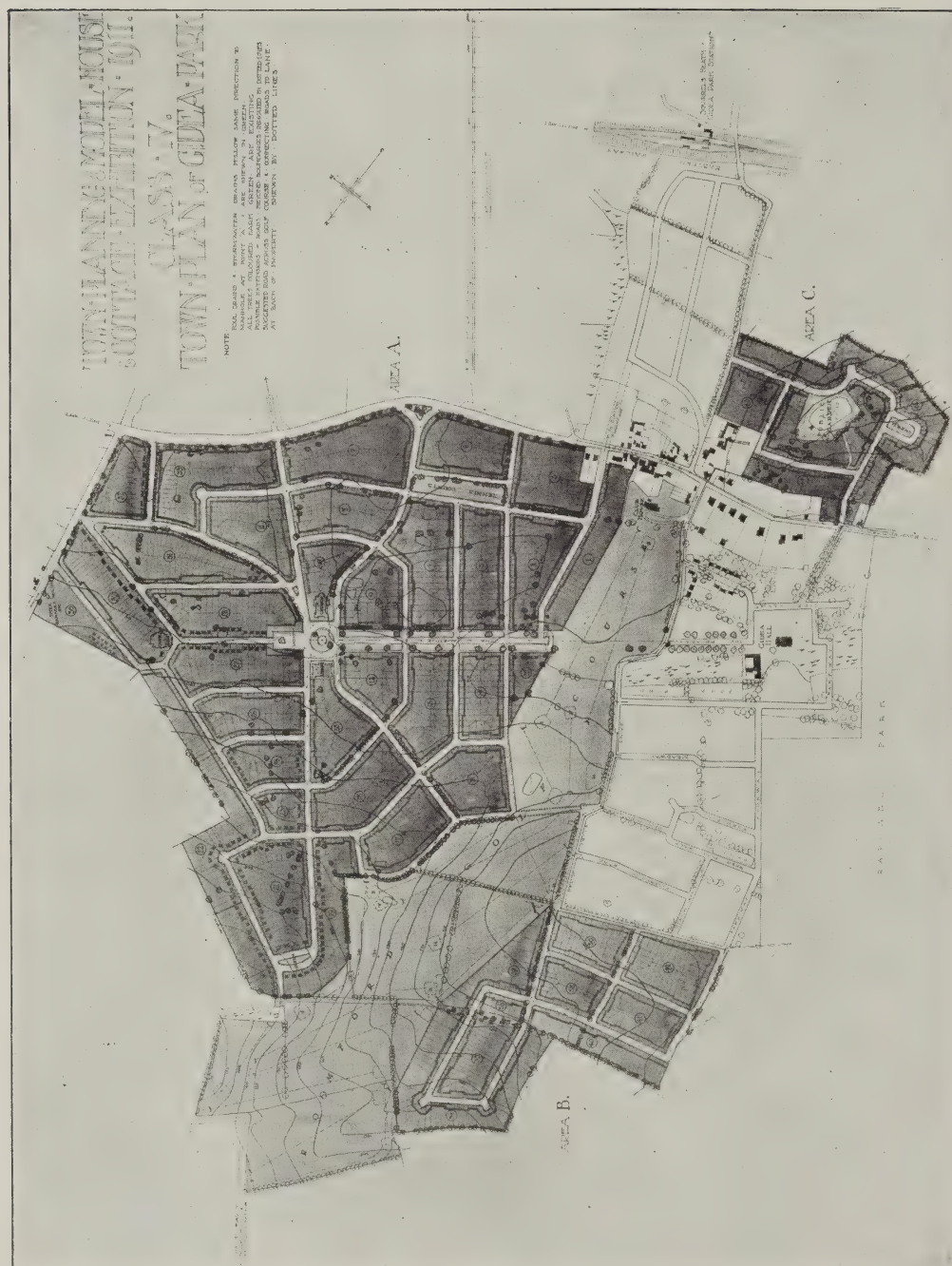
successful from the practical point of view. Although the first-floor passage of Mr. Baillie Scott's houses can only be negotiated by bending or by rubbing one's clothes against their inner walls, at the same time we sympathise with Mr. Baillie Scott in his straightforward endeavour to reproduce the 16th century cottage correctly. Even with all the personal discomforts of the period, it is infinitely more commendable than the characterless results which have followed in so many cases elsewhere, where a fruitless effort has been made to combine modern proportions, modern comforts, and old-world effects.

After all, does the type of residence provided at Gidea Park satisfy the best traits in our middle-class character? Is the modern furniture of Messrs. Hindley and Wilkinson suited to the rough-and-tumble finish of the interior of the cottage in which it is exhibited? Are wooden door latches the cheapest and best that the age can produce? Are silver candlesticks shown to advantage on rough brick chimneypieces with wide mortar joints; if not, which ought to go—the candlesticks or the brick chimneypieces? Are wall surfaces of rough brickwork covered with canvas and lime, inviting the dust, the best and cheapest that modern materials and science can produce?

Whilst undoubtedly modern existence as seen in the ordinary suburb needs simplifying in the matter of the house, at the same time to go to opposite extremes and make our suburbs so extra suburban as to be merely wild rural retreats, better suited for woodmen and peasants than for ordinary city men, is certainly a mistake. More consideration might be given to a type of cottage such as is to be seen on every roadside in Essex, erected in Georgian and post-Georgian days, where a fine feeling for colour is shown in the smooth-plastered façades, the creeper-covered verandahs, and the low-pitched dark-slatted or hipped pantile roofs; where there are no awkward corners, but rooms symmetrically arranged, windows neatly moulded, and chimneypieces which may be described as refined. One would like to see as conditions to be complied with in the next suburb that is to be built, that all internal walls be plain plastered or panelled in wood, that internally-exposed brickwork or stonework be not allowed, that the furnishings be the simplest that the modern ironmonger can provide, that picture moulds be moulded, that rainwater pipes be of iron, that the brickwork be pointed, and that the width of mortar joints be restricted to one inch. But the houses at Gidea Park do not everywhere run to extremes; fortunately archaic interiors like the sitting-room by Mr. T. R. Bridson, M.A., which might well suit the prehistoric cave-dweller, are the exception rather than the rule. Mr. Bunney's cottages in Heath Drive make a delightful picture; Mr. Willmot's cottage, both inside and out, is well proportioned, well planned,



COMPETITIVE TOWN PLAN (PLACED FIRST)
By Messrs. R. Dann and W. G. Gibson
GIDEA PARK



sensibly finished, and one of the best, and Mr. Turner Powell's house at the corner of Meadway and Heath Drive is probably the most scholarly in its finish and in its style.

It is difficult during a casual inspection to see how the prizes have been awarded. The prize houses do not exhibit any exceptional character, nor are they so well proportioned as many others when viewed from the outside ; but a close inspection proves that they are very sensibly and economically planned, and all things taken into consideration no doubt the judges have been very fair in their awards.

Finally, a word on the Town Plan of the estate. In response to the invitation some 30 or 40 designs were submitted to compete. The first prize went to Messrs. W. Garnett Gibson and Reginald Dunn, and the second to Mr. Geoffry Lucas, also the winner of the first prize in Class 1 for a £500 house. The beautiful golf links following Heath Drive separates the estate, and it was on the east side of this that the major portion had to be planned. Like the winner, most competitors directed the main axis of their Central Way on Gidea Hall, but the feature of the winning scheme was a direct avenue from the centre to the station, most of the other roads converging on the central point. A grave fault with the winning design is in the arrangement of its centre. This should have been an open space, and not cut up into three sites for public buildings in close association and informally planned.

S. D. ADSHEAD.

CORPORATE LIFE ON A GARDEN SUBURB

The alteration of a Constitution, as history records, has proved a task heavy enough to strain the resources and tax the energies of nations ; yet the tenants on the newly-formed Garden Suburb at Liverpool have essayed the daring work of making a brand new Constitution for carrying on their corporate life. It may be that the unaccustomed struggle of wrestling with nature in the garden has stiffened their determination, or the emancipation from the thralldom of six-feet boundary walls has fired their imaginations or perhaps the inherent value of combination has appealed to them. But whatever be the motive force, the task has been not only dared, but done.

It began with a general meeting of the tenants in April last, convened by the secretary of the company. They met, about 30 all told, in a room of one of the newly-finished houses. It was explained that living in a Co-partnership Suburb did not mean being isolated tenants, but that the whole of the social and recreative life of the estate would be managed by the tenants themselves. The idea was quickly grasped, and a Provisional Committee of four ladies and four gentlemen was forthwith appointed by vote and instructed to draw up a draft Constitution and report to a future meeting. While the Committee retired to elect officers, the meeting proceeded to discuss the design for a special flag. During the next fortnight the Provisional Committee held several meetings, and the Constitution of a Council of Tenants was hammered out clause by clause with a discussion of detail designed to meet every possible objection. The main object held in view was that the Council, while being popularly elected, should be the medium of communication between the tenants and the Board of Directors, and should be an efficient machine for developing to the utmost extent the aspirations of the dwellers on the estate for a full corporate life.

Two general meetings of the whole of the tenants were necessary before the Constitution was finally adopted, and full scope was given to all concerned to voice their views, and incidentally to become imbued with a keen sense of their responsibilities and privileges as partners in the concern. The chief difficulty was to make the Constitution sufficiently elastic to provide for the rapid expansion of numbers during the next few years. This was overcome by making the membership of the Council increase under a sliding scale dependent upon the number of houses tenanted each succeeding year.

The first election of 10 members to the Council was fixed for June 8th, but, somewhat to the regret of those ardent spirits who delight in a keen fight, only 10 candidates were duly nominated, and a contest was unnecessary. The new Tenants' Council has already got to work, and has found no lack of occupation for its members.

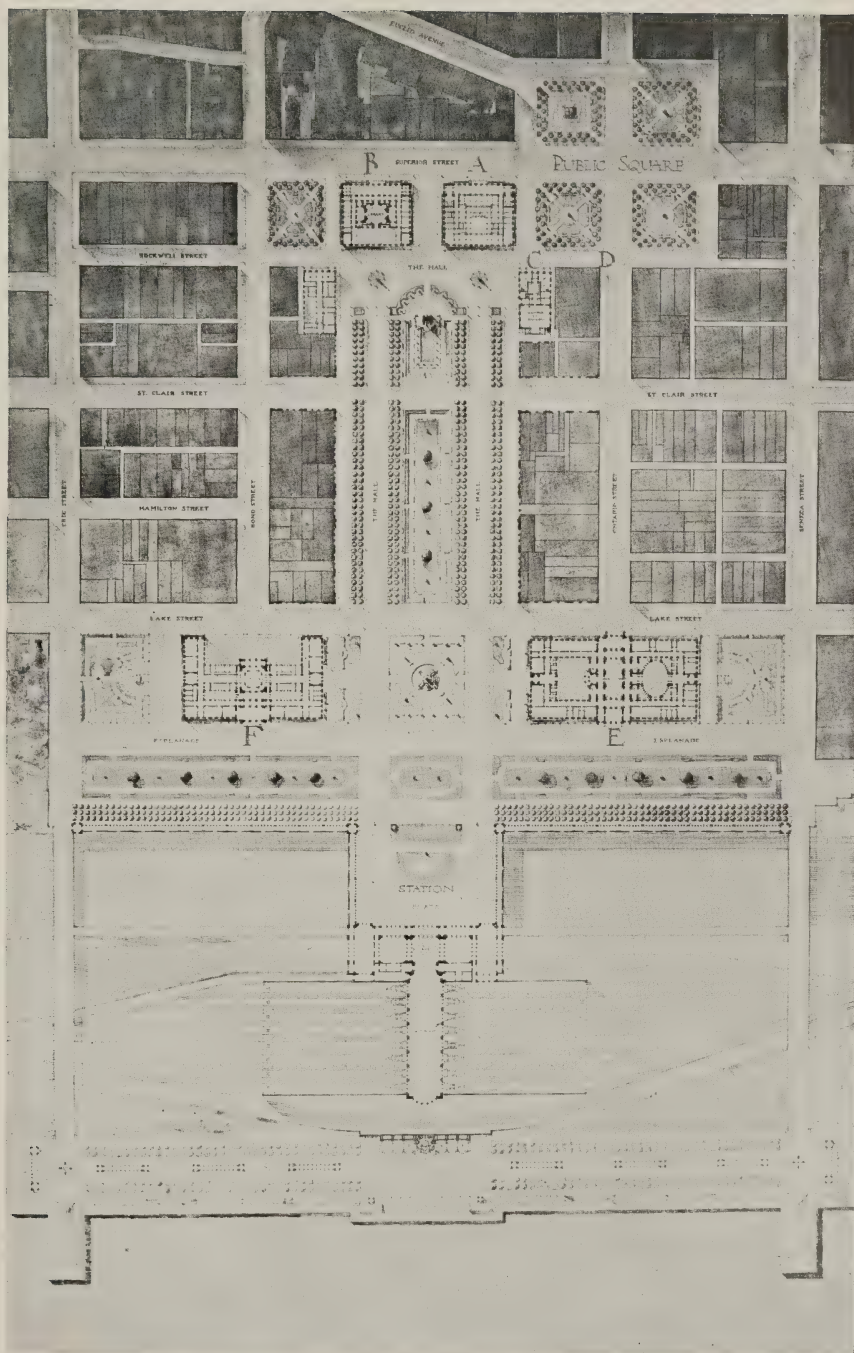
In its final form the Constitution contains six sections with 29 clauses. Section I. deals with the members of the Council, the maximum being 10, which will increase automatically each year until, when the estate is fully developed, there will be about 34 members. Section II. lays down the mode of election of members. A Tenants' Register of Votes has been compiled, with an annual registration fee of sixpence. All persons over 21 years living on the estate are eligible to be placed on the Register. The response has been gratifying, all displaying a desire to be enrolled, and refusals being almost unknown. Candidates have to be duly nominated, the election is by ballot papers, and is held under the authority of a Returning Officer. In Section III. the tenure of the Council is determined, one-half of the members retiring each year, and the annual election taking place during the first week in March. Section IV. lays down the organisation of the Council. After providing for the election of officers it enacts that committees may be appointed to deal with various branches of the work, such as tennis club, bowling club, chess club, children's playground, ladies' committee, open-air village parliament, social institute, and so on. Each committee must contain at least one member of the Council, and must submit their rules and minutes to the Council for confirmation. By this means it is intended, while keeping the supreme control in the hands of the Council, to allow the utmost freedom to all those interested in the various branches of the work to employ their energies in congenial tasks. Finance is dealt with in Section V., auditors and a yearly balance-sheet being provided for. Section VI. lays down the rules for alterations to the Constitution, these being only allowable at the annual general meeting, and requiring a two-thirds majority. Section VII. deals with general points.

Thus it will be seen that a comprehensive view of the position has been taken by these pioneers, and there is every prospect of a real and lasting benefit resulting from their labours.

The question may fairly be raised as to what extent this new feeling of comradeship has permeated the tenants of the suburb and how deep are its foundations. From a close observation it may be confidently stated that this is no merely transient ebullition of enthusiasm brought about by novel conditions of environment. The influence of the latter is

certainly considerable in a cosmopolitan city like Liverpool, where one may live for months in an ordinary street and scarcely know one's neighbours. But the substitution of green hedges for deadly-dull boundary walls is typical of the change in the mutual points of view of the residents, and the influx of air and light is an indication of the spirit of freedom which has brought new interests into their daily round.

W. J. TUCKETT.



PLAN OF PROPOSED CIVIC CENTRE

CLEVELAND

CLEVELAND

A Civic Centre Project

The term "Civic Centre" is one of those Americanisms which expresses not a new thing but an old instinctive idea that has recently come to be self-consciously realised. There has naturally come into existence in most towns some spot, generally an open space dominated by an important building—either a citadel as at Florence, or a cathedral as at Ulm, or a Town Hall as at Brussels—which has become the centre of life to the place; but rarely has any very definite attempt been made to carry out this logically by grouping every other building connected with public life as it comes to be required round this same square. One can call to mind numerous examples of towns in this country where such a centre exists, but it is an exception to find more than one or two of the public buildings placed in direct connection with it. In Manchester, for example, there is Albert Square with the Town Hall forming one side, but though the Library and Art Gallery are at present quite close (they will shortly in their new position be further away) they are out of relation; so is the Ryland's Library (though capable of being brought into relation) and the Post Office; the Cathedral and Law Courts are further off still. No doubt the difficulty of procuring reasonable sites has caused this scattering of energies, for at Cardiff, where a central park was available, a modern civic centre has been created. But this example lacks one of the chief characteristics which attaches to the modern term civic centre, *i.e.*, the possession of some definite scheme of development. The Cardiff buildings have been dumped down one after another within the space of a few years, with apparently little artistic co-relation, the level site suggesting a formal arrangement of classic structures.

It is interesting, therefore, to examine this American example of Cleveland, which is of about the same age as Cardiff, but which has had none of the latter's advantages of space and unoccupied land; in fact, the problem of connecting the Ryland's Library with the Town Hall in Manchester, and adding to the group the proposed Art Gallery and Public Library, would be considerably less of an undertaking than the civic centre project for Cleveland.

This particular example has been selected because it was one of the first to be projected, it is certainly the finest in design, and it is the furthest advanced towards completion. The position was this: Five new buildings were required for the city—a Federal building, including a Post Office, Custom House, &c., a City Hall, a County Court House, a Library, and a Railway Station. Sometime in 1897 it was first suggested by an

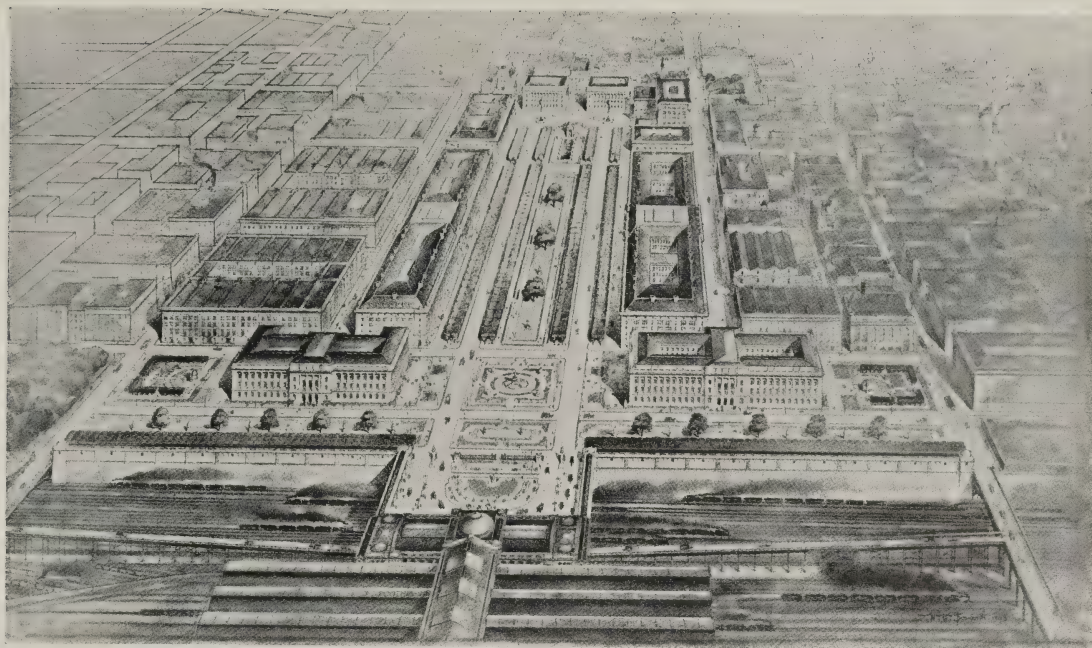
architect that instead of buying isolated sites for these buildings or even grouping them haphazardly around the existing public square, and relying on their very bulk for giving a certain chance dignity, they should not only be grouped together but be subjected to a general architectural overseeing, which should weld them with the help of tree planting and formal gardening into a single conception. We have a very close analogy of this idea in this country in the five blocks of Greenwich Palace—the work of many architects, but the whole forming one complete and balanced group.

Before this suggestion could be acted upon, the site for one of the buildings—the Federal—was selected overlooking the Public Square, with its main front facing the principal street, Superior Street.

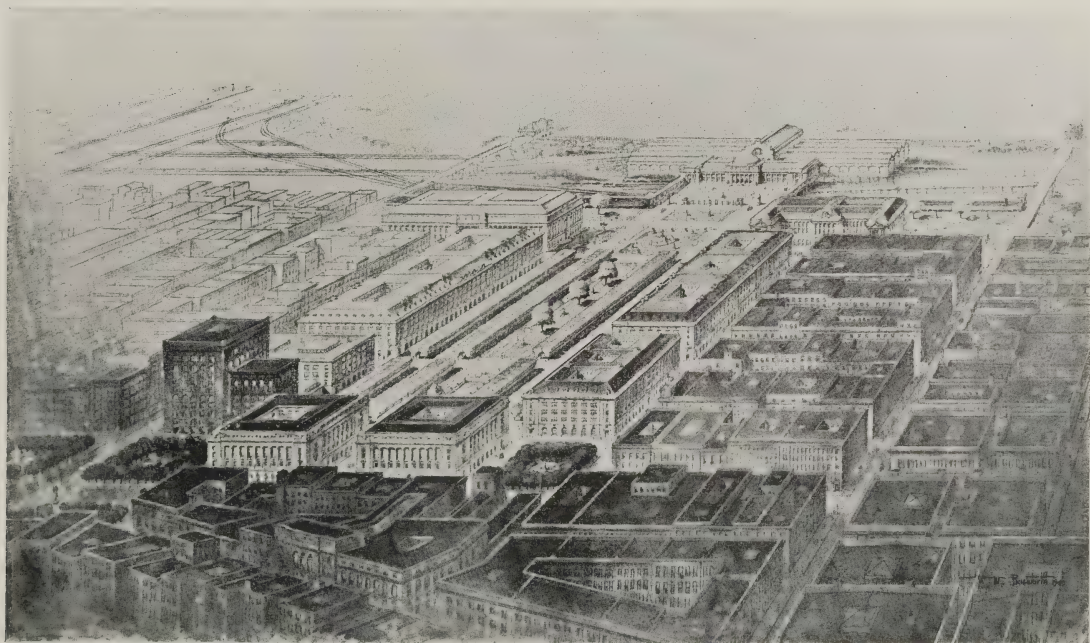
The Public Square of Cleveland is placed some 600 yards from the front of Lake Erie, to which it is connected centrally by Ontario Street ; Superior Street also enters it centrally at right angles, running parallel with the lake front. An important diagonal, Euclid Avenue, leads direct from the south-east corner of the Square through the most important residential district into one of the main branches of the park system. It would seem natural at a first glance, therefore, that a civic centre project should contain this square, the street leading to the lake, and the lake front. To upset the realisation of this simple solution was the fact that the Square was already largely built up with important buildings which could not be discarded ; one of them in particular, the Savings Bank (D)* at the corner of Ontario Street, a very lofty structure which could with difficulty be brought into a composition and which would effectually prevent the widening of this axis. The other difficulty was the railway, which runs along the lake front to the station (to be rebuilt) a little to the west of Ontario Street. The number of tracks and the impracticability of a tunnel would spoil the effect of a lake-side park, particularly as it faces nearly due north.

With these difficulties and the Federal Building already in hand, a commission was appointed to prepare a report which was presented to the Mayor and the Board of Public Services in 1903. The commission consisted of three architects—Mr. Daniel Burnham, Mr. John M. Carrère, and Mr. Arnold Brunner, the latter being the architect for the Federal Building. Plate 67 embodies the chief features of the scheme proposed by the commission, which has been adopted by the municipality. The main axis, it will be seen, is shifted to the east of Ontario Street and the Public Square, and comes between the new Federal Building (A)* and a proposed balancing building (B),* the Library. On this axis on the lake front it was decided, after much anxious deliberation, to place

* For these letters see the plan, plate 67.

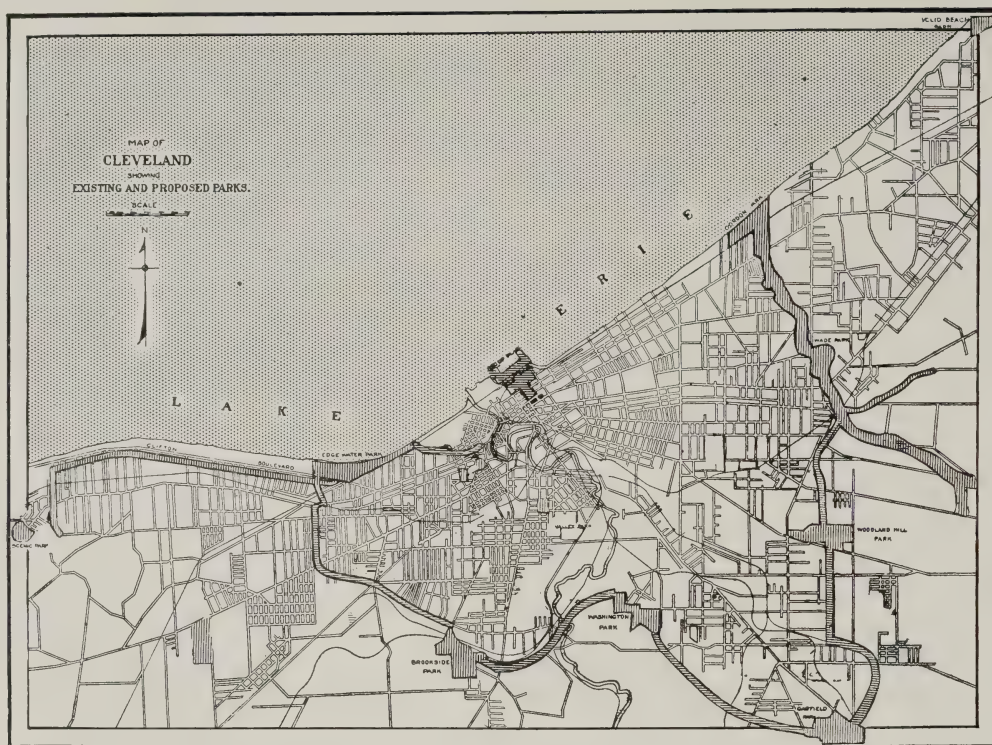


BIRD'S-EYE VIEW LOOKING SOUTH



BIRD'S-EYE VIEW LOOKING NORTH TOWARDS LAKE

CLEVELAND



PLAN SHOWING EXISTING AND PROPOSED PARK SYSTEM

Vertical shading indicates existing

Horizontal shading indicates proposed



SECTION THROUGH MALL

Looking towards Federal Building and Library

the railway station, with a forecourt and entrance front on the high level, the lines and a small promenade on the lake front being on the low level. The width of the station forecourt is continued across an esplanade, and in the form of a double tree-planted Mall with a central feature of grass and flowers. The two blocks A and B form a gigantic architectural drop scene parted in the centre; a fountain placed considerably in advance forms the centrepiece with an apse of formally-cut trees encircling it. On either side of another fountain nearer the lake will be placed, set back, the County Court House (E) and the City Hall (F). A long blind arcaded wall shaded by trees masks the railway lines on either side of the station place and a cross vista, planted similarly to the main one runs parallel with the long fronts of the two blocks E and F. The existing Chamber of Commerce (C) is incorporated with the scheme, and in order to complete the architectural effect the report recommends the adoption of an "Ordonnance" or prescribed elevation for the buildings facing the Mall, to be carried round the corners as far as practicable. The commission strongly advises buying the plots facing the new Mall, and reselling with certain restrictions imposed. This appears to necessitate a greater outlay of municipal funds, also it must be conceded with possibilities of municipal profit on the trading. But it seems a less portentous method to pass a by-law (as it has been done so frequently in Paris) imposing an architectural "Ordonnance" on these plots.

No doubt the great drawback to this scheme is the presence of the railway tracks with the consequent smoke from the trains, the low level being practically no safeguard against this. The suggested probable electrification of the lines and the removal of the panels between the arcades to give a view of the lake appears to be too optimistic. A main through line is considerably less likely to be electrified than the last section approaching a terminal as at New York. The idea, however, of the station forming part of the group is entirely admirable. As the report says: "In the days of old the highways led into the cities and terminated in beautiful and imposing gateways, which in times of war were used as means of defence and were ornaments to the city. With our modern civilisation the railroad has practically replaced the highway, and the railroad station in its function at least has practically replaced the city gate. If this railway station can be made really imposing—a dignified and worthy monument, a beautiful vestibule to the town—it seems to us that this is a splendid opportunity of achieving great results. In bringing the visitor to Cleveland through a magnificent entrance through the most attractive section of the city, his first impression, which is usually the most lasting, would be a favourable one."

Another fine subsidiary feature of the plan is the way the Court House and City Hall form terminal buildings to the vistas down Ontario Street and Bond Street.

The only feature in the design which appears to be questionable is the placing of large uncut trees down the centre of the main vistas ; they are out of character with the clipped double rows on either hand and also defeat the aim of a vista, which should be to lead the eye uninterruptedly between an avenue of buildings, trees and flowers to the monument at its head. One would be continually dodging the trunks of these trees to get a glimpse of the fountain at the end.

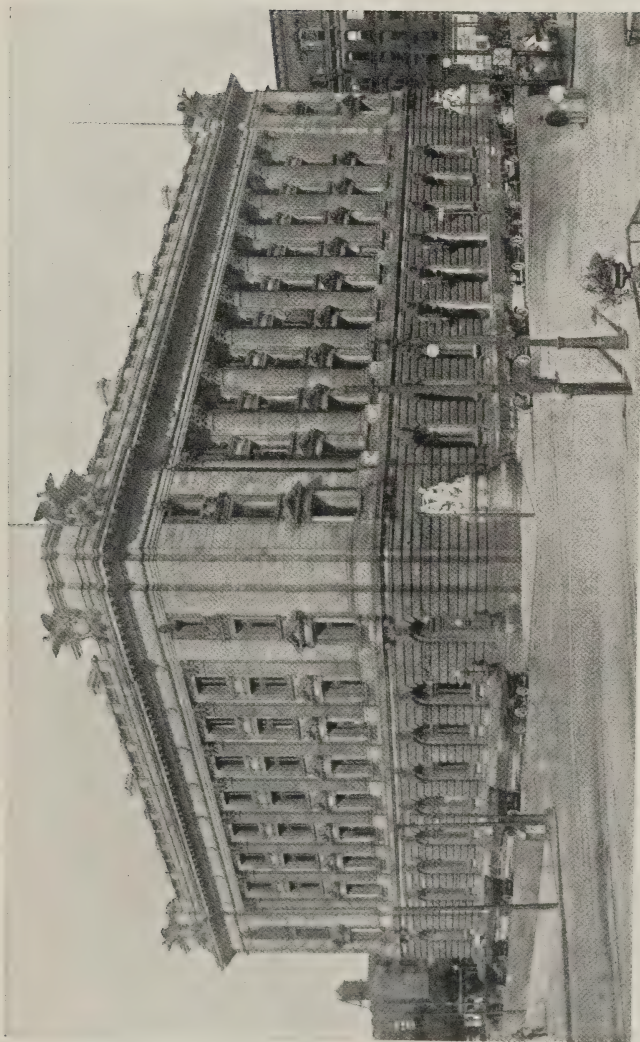
The report concludes with a series of photographs of existing examples which have been useful in suggesting the treatment adopted by the commission. We are surprised, however, that the two Gabriel Buildings facing the Place de la Concorde at Paris are not shown, as they have so manifestly suggested the two buildings forming the drop scene at the end of the vista.

Progress towards Realization

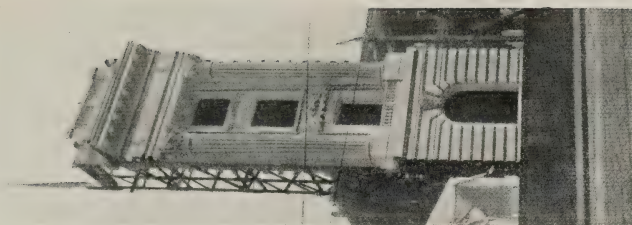
It will now be interesting in view of this ambitious scheme to see what has been done during the eight years that have passed since the presenting of the report.

The first part to be carried out has been the Federal Building. As this was begun before the scheme was elaborated, it might be considered that this was outside the project. But though the site was determined beforehand, the requirements of the scheme caused Mr. Brunner, the architect, entirely to remodel the original design ; what was to have been a back elevation (showing a hollow court) became the main front to the Mall, of such importance that, like the Superior Street front, it has been treated with three-quarter fluted columns, whereas the front to the Public Square has flat pilasters.

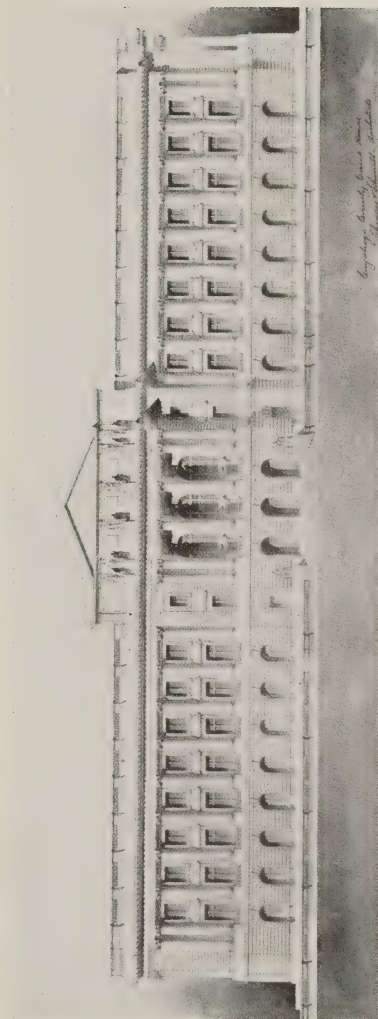
The design of this building illustrates admirably what was said above about the co-relation of the parts of the scheme. It is manifestly a unit out of a large whole, rather than an independent building. The architect has been content to forego a good deal of the natural artistic desire for self-assertion. His building is used in the completed effect rather as a background than an arresting object, and it has been composed accordingly. As an example of the thorough way in which this civic centre is being carried out, we illustrate the full-sized model of one bay of this building which was erected in order to determine whether the right scale had been adopted. The importance of this is obvious, for the scale once set by this building will have to be carried through the whole group. It is difficult to judge, of course, from the single bay of a



FEDERAL BUILDING FROM PUBLIC SQUARE



FULL SIZE MODEL OF ONE BAY OF FAÇADE



COUNTY COURT HOUSE FACING ESPLANADE

CLEVELAND

building, but it is very much easier than from a drawing or a small-sized model. The internal arrangements of this structure do not concern us here, as that is a question of architecture, rather than civic grouping ; but it is interesting to note that in this apparently simple building are contained a Post Office, a Court House, a Custom House, and groups of offices for every department of the Government, except the Interior department, which has business to transact in Cleveland. The problem of combining so diverse elements into a unified whole must have been perplexing.

The new County Court House (see plate 70) is now nearing completion, and will probably be open to the public this autumn. The foundations for its corresponding building, the City Hall, are in hand, and the corner-stone is to be laid this July.

Mr. Burnham has also made the drawings for the Railway Station, but the negotiations for the transfer of the land from the city to the railway companies have been temporarily blocked by a suit in court, brought by an owner who claims a residuary interest in the property.

The Public Library, also one of the five buildings, has not made a start. Its site is at present occupied by the City Hall, and until the new building is completed and the present site vacated nothing can be undertaken.

Altogether it may be said that quite two-thirds of the land necessary for the entire scheme has been acquired for public use and on a portion of the land the buildings have been torn down, thus giving by means of the vacant spaces some idea of the shape of the Mall when finally laid out.

It is difficult to give figures at this stage, but we understand that the expenditure up to date is somewhat over 12,000,000 dollars, including an item of about 4,000,000 dollars expended by the Government for land and buildings. The probable cost of the complete scheme to the city may be arrived at by adding on the cost of the City Hall (2,400,000 dollars) and the likely cost of land still needed for the Mall, estimated at about 2,000,000 dollars, including the improvements planned for this part of the scheme. There remain the Union Railway Station and Public Library. The railways may expend 5,000,000 dollars and the library 2,000,000, making an aggregated probable expenditure to complete the scheme of 11,400,000, the greater part of which does not fall on the municipality.

P. ABERCROMBIE.

A SUGGESTION FOR AN INTERNATIONAL FEDERATION OF TOWN PLANNERS

With a Note on the Newly-formed Association of French Landscape Designers

The Park-men (as the Americans call them) of France have recently discovered themselves and united to form a Technical Association of a similar sort to the Society of Landscape Architects of America. In America, however, the term landscape architect is very similar in significance to our "town planner," whereas the members of this French Association are quite definitely garden designers, and approach town planning chiefly through their insistence on the preservation of open spaces.

We have received a copy of the first number of the official Bulletin* of this Association, which contains a descriptive foreword by M. J. C. N. Forestier, the distinguished superintendent of parks and gardens to the city of Paris. The object of the new Association is by no means only that of an ordinary trade union (though this was also aimed at); it was originally intended to be an international society for the interchange of ideas and information; but on the advice of several American experts it was decided to form a definitely National Society first, with the object of ultimately creating an International Federation with similar societies in other countries. This appears to us by far the wiser plan; there are already in America three societies which closely resemble this French one—the American Playground Association, the American Association of Landscape Architects, and the American Association of Park Superintendents. If a new International Park Society was started it is hardly likely that the members of existing societies would subscribe to it in addition, whereas they would probably all be willing to appoint delegates to an International Federation.

The only other country, so far as we are aware, that has a similar society already established is Germany, with its "Deutsche Gesellschaft für Gartenkunst"; but we hear that Holland and Belgium have already in hand the formation of similar societies, and the idea of an international committee appears to be favourably received by them all. Where in the meantime is England? It would appear that in this country, with one or two brilliant exceptions, the career of a landscape architect has hardly emerged from that of the horticulturist on the one hand and of the architect on the other.

* Bulletin of the Technical Association of Open Spaces and Public Gardens (France).

It is interesting to note in this Bulletin the sphere which is claimed for the work, and the similar lack of its appreciation in France that there is in this country. "There are still," says M. Forestier, "in France few towns in which the new and exceptional interest which attaches to these questions is appreciated; and frequently the services connected with gardens, flowers, and plantations are consigned to an inferior position, as subordinate to those of the engineer or the architect. When large undertakings are under consideration, it is not rarely that those whose mission it is to beautify the town with its floral life, to preserve its trees, its spaces of air and light, and its gardens, are hardly consulted. And by reason of this omission, shortsighted municipalities are induced to give consideration only to the works of engineers or to the design of façades. . . . without beautiful gardens, railways are but instruments of torture, and the most gorgeous palaces prisons," gross handiworks, as Bacon calls them.

The object of the International Federation would be to hold regular conferences for the interchange of information and ideas, and it is even suggested that a Bulletin might be published in Esperanto.

To return to the Bulletin of this newly-formed French Association. It is a modest quarterly of about 30 pages, containing technical articles on the subject of parks and gardens, which should prove of great interest, especially in view of the amazing pitch of excellence to which the French have arrived in this direction. This first number is largely occupied by letters from experts in various countries who have been consulted with reference to the International idea (no word is included from England on this score; but America, Mexico, Buenos Ayres, Italy, Germany, Austria, Holland, and Belgium are represented). This space will probably be given to more technical articles in future numbers. So this quarterly forms another addition to Town Planning periodical literature.

An International Federation of Town Planners

And now we would like to go a step further. While elaborating the machinery for an International Federation of Park Designers, why not make the same machinery do the work of bringing together the Town Planners of the world? A park designer who approaches his subject in its larger aspect must of necessity be something of a town planner; he naturally concerns himself with such questions as the selecting and designing of a general park for a town, its connection by means of parkways and boulevards with other open spaces, and the formal laying out of town squares and gardens. These works are inseparably bound up with the general scheme of the town, its street plan, the grouping of the public buildings, and the housing of its inhabitants. Town planning, in

fact, includes the broader work of the park designer, the city engineer, the architect, and the housing reformer. It is natural that certain practitioners in these services should incline to their more specialised sides—certain Park-men to the cultivation of actual trees and shrubs, certain Engineers to the paving and sections of streets, &c., certain Architects to the designing of individual buildings and interiors, and certain Housing Reformers to the actual building of cheap dwellings; but others are especially interested in the general object of the provision of open spaces and park systems, the street plan as part of the circulation system of the town, buildings as forming the general architectural setting of the town, and the general question of housing conditions. These latter are they who would join the International Federation of Town Planners—Park-men, Engineers, Architects, and Housers in this broad sense could not separate themselves, they may be even combined in the single person of a Town Planner.

The need for international intercourse has been sufficiently demonstrated: the Housing Congress at Vienna last June, the Town Planning Conference of the Royal Institute of British Architects in London last October, the City Planning Congress at Philadelphia of May, and the Municipal Engineers' Conference for July of this year, while each leaning towards some special aspect (as these names suggest), are also of general significance and, further, are international in their scope. It is notable, also, what a large proportion of the same experts attend each of these conferences. Here, then, is the nucleus of material for an International Federation.

By all means found a National Association of English Landscape Artists or Park-men, even as we already have a National Architectural Society, and National Engineering Society, and a National Council of Housing Reformers. This would consolidate our park designers and bring them on to an equal footing with their colleagues in America, Germany, and (from the present) France, Holland, and Belgium. But let the Town Planning enthusiasts out of these different societies join an International Federation, which might meet regularly in different countries for annual conferences. There is no subject which benefits by international comparison more than Town Planning: we are frequently sending deputations over to Germany, and they are as frequently sending them over here. Each country can learn something from the excellencies and faults of another; and with a new subject like town planning, a systematic interchange would save a great deal of time and effort.

It seems a pity to limit the international exchange to one branch when all are so closely interwoven and inter-related.

P. ABERCROMBIE.



THE WATERFRONT



MADISON SQUARE WITH THE METROPOLITAN LIFE BUILDING



LOOKING NORTH FROM THE METROPOLITAN LIFE TOWER

NEW YORK

SOME AMERICAN IMPRESSIONS

I.—The “Art Atmosphere” of New York and the Relation of the Skyscraper to Town Planning.

Before I journeyed to America a few weeks ago, bent on making a study of housing and city planning conditions and ideas in that country, I was conscious of having formed a few opinions and prejudices as a result of desultory reading, the study of plans and photographs, and some discussion with men who had preceded me in a similar investigation. In qualification of the prevailing opinion of Europeans, that the skyscraper of New York was a necessary evil, with no redeeming artistic features, I had learned that there was another side to the question, and that one or two artists had applauded American art and American architecture, even as expressed in the many-storeyed buildings of New York, as worthy of the highest admiration. As there is a direct connection between the skyscraper and housing and city planning problems in America, I propose in this short article to express a few general ideas that have occurred to me as a result of my visit. I should prefer to dispense with the word “skyscraper” but cannot find another word which conveniently and graphically describes the high cliffs of masonry which have become the feature of New York City, and are taking a distinct place in American architecture.

In a short article which appeared in a special number of the *Studio*, accompanied by a series of delightful sketches of New York, Mr. Joseph Pennell—artist and American—said as much as that the average foreigner went to America full of prejudice and doubt; and I candidly accept that as a description of my own frame of mind in starting out upon what proved to be a profitable and enlightening inquiry. Presumably, he was referring to those who attempt to form opinions on matters connected with art, and perhaps there was a grudge in his mind against the man who has been prone to accept, without question, the dictum that the American skyscraper is an abomination, and a thing with which no beauty and no grandeur can be associated. Mr. Pennell knows his New York and he loves his country; and in his enthusiasm for the “art atmosphere” of America we can detect the emotions of the patriot mingling with those of the artist, without having any certainty as to which is uppermost. Under certain conditions, and in certain aspects, the “mountains of buildings” in New York are an inspiration and delight to his artistic soul, and because of that and because of ignorant prejudices formed by people who have only seen them in photographs

(which are so often untruthful and unreliable), he is, perhaps, partially blinded to their gloomy and unattractive side. He sees in them the "mighty cliffs glittering with golden stars in the magic and mystery of the night," and perhaps by day he glories in the picturesque sky line of the water front of Manhattan as seen from the upper bay; but if one is to judge from his written word his eye does not seem to penetrate into the narrow sunless streets getting more narrow, more gloomy, and more sunless in contrast with the surrounding buildings every day. In his article he does not appear to be affected by the human side of the problem created by the coming of the skyscraper, the absence of pure air, light, and sun to the myriad workers in these congested hives of industry. But we know the artist cannot be indifferent to these problems. Until his imagination carries him behind the scenes, into the dark rooms and passages, into the crowded streets and tubes, into the homes and hospitals, into the vitiated atmosphere—until he realises the strain on human health and well-being that the skyscraper means, he cannot appreciate its place in art, or give life to the composition which includes it. And I believe that in his inner heart Mr. Pennell knew and felt these things, for, in spite of what he writes, his sketches reflect his knowledge of the life behind the mountains of buildings he so ably depicts.

One can scarcely conceive a more beautiful and inspiring sight than New York Harbour during certain parts of the night or day. The conglomeration of mixed types of cliff-like office and warehouse blocks collected round the Singer Tower, haphazard as has been its growth, and unseemly as are many of the units, has a strikingly artistic effect. Side by side with the Statue of Liberty it depicts the spirit of boldness, the individuality, the enterprise, the restlessness, and shall I add the recklessness of the American Nation. That group of mountainous buildings is a symbol of the life of a great cosmopolitan people, as becoming and appropriate as the sombre domestic architecture of Edinburgh, the stately public buildings of ancient Athens, or the grace and charm of Paris. Indeed, it would hardly be American were it not somewhat reckless and disordered. And so the skyscraper, however incongruous and ugly it might be in a European capital, is helping to create a new art atmosphere in America. Mr. Pennell is only one of many who accept it in this light. Even the switchback skyline of the main avenues is regarded with something akin to artistic appreciation. Unfinished gable ends of new buildings tower 17 to 20 storeys above the five or seven storey type of a generation ago. This is regarded as a symbol of rapid growth, inevitably producing rapid change. In the period of transition the old and new must stand side by side and the dwarfed classic façade sandwiched between plain-designed 20-storey office tenements must pay

tribute to the progressive spirit of the age. Americans dislike wiggle-woggle streets, but they are learning to love severely wiggle-woggle skylines—partly because they see no means of averting them, partly owing to a reaction against the regularity of the layout of their streets, and partly because they realise that uniformity does not necessarily mean beauty nor irregularity ugliness.

If these observations truthfully portray the position taken up by some minds they indicate the presence of two extreme views, diametrically opposed to one another. On the one hand we have the strong aversion to the skyscraper, of the type of quasi social reformer and artist who believes in the outspreading rather than the upspreading of the city as the method best calculated to secure the sum of healthy conditions of life, business facility, beauty, and amenity; and on the other we have the artist who looks upon the high building favourably as an artistic expression of the life of the American people, who is somewhat of a philistine in regard to affairs of social betterment, who resents the monotony of some attempts that have been made to secure the conscious ordering of city growth, to whom there is even some attraction in the chaos produced by unbridled individualism, and who is more or less content with the general result produced and does not think it worth while to be critical of the individual units which make up the complete picture or pry too deeply into the human problems that are associated with it. The first is to some extent the basis of the prejudice and doubt which affects the foreign visitor to America; it rests on a knowledge of European rather than of American conditions, and has in it the weakness of a generalisation on a subject on which no judgment can be sound that does not recognise the many points of view from which it can and should be approached. The second arises partly from resentment against the prejudices which exist, and is partly influenced by the inevitableness of the situation.

I admit that my visit to New York modified certain views I had formed on the subject of the skyscraper. There is a mean, between the two extreme views, which I have attempted to describe, towards which a study of American conditions on the spot would seem inevitably to lead those who are not obsessed by fixed ideas. And I write as one who has had more intimate connection with the human and practical rather than the artistic side of the problem of housing and town planning. Not that these two sides can really be dissociated. Indeed much of the divergence of view which exists with regard to them arises from attempts to keep them apart or to discriminate between them. All permanent forms of art are founded on utility and their expression in beautiful things are important elements in all social and civic betterment. The

accidental grandeur of a combination of skyscrapers may give rise to artistic emotion ; so also may the flaming furnaces round Pittsburg and Birmingham in the black night that forms a shroud to the desolation around them. But the artist who knows of the unhealthy effects of the crowded tenements, who looks into the future and sees the twenty-storey block not as an isolated tower but as one of a legion that uniformly fills up all space over a large area, or who comes in daily contact with the squalor and ugliness of the surroundings of the steel mill, cannot limit his vision to the passing picture of the moment. If he attempts to portray it truthfully his knowledge of what lies beneath must influence his work ; he cannot put his soul into the work unless he sees the soul within and behind the form he wishes to depict. So too in the seemingly simple art of laying out roads and streets, artistic, social, and economic questions overlap at every point. It is only when we realise these necessary relations between the economic and social and the artistic that we can look at the problem of New York and its high buildings in the proper perspective.

When we do this we will have to accept the skyscraper as inevitable and proceed to consider how it can be made healthy and beautiful. Conditions of health can only be secured by preserving ample open space round high buildings so that there shall be ample light, air, and sun penetrating every part ; and that high buildings can be made beautiful needs no demonstration. The Metropolitan Building with its forty storey Tower, the Plaza Hotel with its twenty storeys rising in a solid square block on the southern side of Central Park sufficiently prove that the high building may be artistically designed and expressed. But these buildings are complete in themselves, they are appropriately designed for appropriate sites with appropriate surroundings, each overlooks on one side an open space that makes it possible to look upon them in the right perspective and at the same time gives light and air to every floor. It is not so with the slices of blocks that disfigure Fifth Avenue and Broadway, incomplete in themselves, parts of no homogeneous whole, and awaiting the time when other blocks will be built around them to shut out the light of which they have a transitory lease at the will of the adjoining landowner.

If, as I take it, the high-storeyed building must be the prevailing type of the future on the Manhattan part of New York, the question which the civic rulers of that city have to consider ceases to be how to avoid the skyscraper, but how to limit and control it in accordance with a scheme of development for the whole city. There are some Americans who owing to a false spirit of liberty, or erroneous artistic notions, would question the desirability of control.



BROADWAY DOWNTOWN



HUDSON RIVER TERMINAL BUILDINGS



RIVERSIDE DRIVE—A RECENT IMPROVEMENT
Appropriate Site for High Buildings

Let us therefore consider what other alternatives present themselves. In the first place matters may be allowed to go on as they are. No standard of height being fixed every owner of land tries to go one better than his predecessor. The forty storeys grow to fifty, the fifty to sixty, and the twenty storey building of yesterday becomes so overshadowed and darkened that every room not looking on to the street has to be lit all day by artificial light; the three-storeyed crowded underground tube becomes the only effective means of transportation from the centre to the suburb. In time a certain uniformity must be arrived at for, if no limit be placed on height by law, there will come a point beyond which it will be undesirable to go as a matter of business and common sense. Then the uniformity will not be limited to height of building; there will be uniformity of intensive congestion, and uniformity of darkness over large areas. Every owner will have got his golden egg, but in the process he will have killed the goose that laid it. Improvement in transportation will bring a wider circumference of land into competition with the central areas where business can be conducted at much less cost and with greater facility, and where all the expenses of artificial lighting, human transportation and congestion can be avoided. The result will be reaction and great financial loss in the centre. Is that the goal which the enterprising American desires to reach, or is he simply content to let matters drift?

A second alternative is to call a halt to high building, standardise the height of all buildings, deal with each individual plot under a general code of building regulations, and, having acknowledged that everything higher than say ten or fifteen storeys is a mistake, prevent any future buildings from exceeding that limit. I am afraid this alternative may be put aside as impracticable, as very formidable opposition would be offered to it by the owners of real estate and they would have reasonable ground for this opposition, because of the license that had already been permitted to other owners. Nor would any permanently satisfactory result follow this procedure, and the present disorder would only be intensified. Ugly gables of twenty storey buildings would be left exposed, there would be little advantage from the point of view of light except to the skyscrapers already erected, and the competition of the outer suburbs would not be averted.

What is wanted is to arrive at some practical method which would enable the development of the city to be considered and dealt with as a whole, not according to hard and fast rules, but in accordance with a definite policy based on an elastic procedure and on artistic and scientific considerations, by a trained body of men having wide discretionary powers. Whether a city planning policy had for its object the control of suburban development alone, or embraced within its scope the control

of building and street lines on areas already developed, it would have to take into consideration the existence and the future of the skyscraper. In its social, economic, and architectural aspects it will have to be dealt with as an established institution in New York. It has its place in the life of the community just as the suburban cottage set in its pleasant garden has another place, and from an artistic point of view there are certain sites for which it is more appropriate than the well-designed cottage. We have to recognise that City Planning in its widest sense covers almost every aspect of city life and growth. It is only when it is dealt with in its widest sense that the best results can be secured. It has, on the one hand, to take cognisance of the city as a comprehensive whole in its social, architectural, engineering, moral, physical, and other aspects; it has, on the other hand, to deal with individual units of building and with problems arising in connection with the housing, sanitary wellbeing, and health of individual units of population. Foresight, imagination, and recognition of the evils which spring from haphazard growth are no less necessary in the composition of a City Planning Commission than are the qualities of the highly-trained intelligence that is equipped with scientific facts, experience, and knowledge of the lessons of history. Regulations are necessary when it is considered advisable to suppress the exercise of local discretion or initiative, or where in the choice between two evils that arise from giving discretionary powers, or from a fixed code applied to a variety of differing conditions, it is thought wisest as a result of experience to err on the side of the fixed code.

But the very qualities that are most needed in City Planning in its widest sense are those which would be stultified under a hard-and-fast code of regulations. The best minds should be brought to bear upon the subject, as one of the most important in the life of the people, from every point of view, and having secured this there should be ample scope given for the exercise of initiative, foresight, and imagination, as well as discretionary powers in those isolated cases which must arise and can only be satisfactorily settled on the merits of each particular case.

Of course, there are innumerable matters of detail which can be settled according to fixed rule, such as most of those included in the Model Building Bye-laws of England. Provisions for sanitation, construction of buildings and roads, and standards of height and width of both in general cases, &c., could all be determined in advance. But one principle on which the Town Planning Act of England and Wales is based is that the preparation of Town Planning schemes may require the variation of bye-laws affecting street widths and other matters in special cases; and it is more important that the regulation of the height and character

of buildings under the special conditions prevailing in New York, the amount of open space and width of street required for each building, the relation of public buildings to the parks and park system, the limits of density of population and its relation to the future growth of transportation services, and the connection of one and all of these problems with industrial development be considered. These and other important problems require not only Commissions to study them and recommend a policy to deal with them, but the creation of a statutory Commission with large powers of execution and control and with a considerable and definite amount of revenue at its disposal. It would not only be a city planning but a city training Commission. The problems vary from day to day, and they require the constant watchfulness of trained men to secure that gradual process of improvement, which is so much more effective, economical, and businesslike than sporadic schemes of wholesale reconstruction, or the isolated and occasional efforts of Park Commissions.

It is claimed for New York that it is growing more rapidly than any European city, and yet I have never seen suburbs so neglected and disorderly in their development as those I drove through in Long Island. Wherever there is any order or evidence of control in development, it is solely the result of private speculation in large areas of building land. The owners of these areas recognise the value of attractive approaches and surroundings as a means of promoting the development of their property. But where small ownerships exist there is admitted neglect of everything that tends to secure the sanitary wellbeing and efficient public control of streets and buildings. A Town Planning Act to deal with unbuilt-upon areas is more necessary in New York than in an English city, because of the abnormal overcrowding and bad sanitation of its slums, the chaos and backwardness of its existing conditions in its suburbs and the rapidity with which it is expanding into an ever-widening circumference. The fact that it has a cosmopolitan population, ever varying in character, with migratory instincts, and not so amenable to control as the population of an English city, is not a reason for neglecting to deal with its problems of city development and housing. On the contrary, it increases the urgency and importance of dealing with them. It may, of course, justify the anticipations of greater difficulties to be overcome, and hence would either be a reason for being satisfied with less satisfactory results or would make those attained more creditable in comparison with cities where the difficulties were less.

These are some of the general impressions which struck me as a visitor to New York, but it would be unfair to conclude this article without referring to the splendid efforts that are being made to cope with some of

the problems that confront that great city. There is an influential Commission at work on the problem of Congestion of Population, with committees dealing with questions arising in connection with parks, playgrounds, and recreation centres, streets and highways, transit docks and ferries, housing conditions, factories, taxation, legislation, public health, immigration, labour and wages, charities, public squares and buildings, and crime and delinquency.

There are City Improvement, Art, and Park Commissions, all devoting themselves to working out the best means of improving the city and its environs. There are men of the first rank in architecture designing its public buildings, with results that are not unworthy to be placed alongside of the best examples in Europe, and exercising a powerful influence in the direction of securing a higher standard of architecture in America. There are young architects of taste and ability, like G. B. Ford, Anderson Pope, and scores of others growing up in the profession with a deep sense of the human problems associated with their architectural work and with city planning. Above all, there is a new spirit abroad which revolts at the ugliness and squalor, the disorder and untidiness, the unhealthiness, corruption, and want of control which have been the results of public administration in New York in past decades. With these men and influences at work the time will soon come when the present isolated efforts will be brought into harmonious relation, when the housing of the common people will no longer be regarded as a thing apart from city planning, and will be treated as of at least equal importance as the creation of park systems and civic centres, when what is called concentration for business purposes will no longer be an excuse for congestion of population, and when human life will no longer be held so cheap as it unfortunately is to-day.

In another article I hope to deal with the economic side of the problems to which I have referred, to the recommendations of the various commissions at work, and to the excellent practical results which so have far been attained as a result of these recommendations.

THOMAS ADAMS.

REVIEWS OF CURRENT PERIODICALS AND NEW BOOKS

Local Government Review (June)

Of all the periodicals which deal with the life and management of towns perhaps the *Local Government Review* is the most permanently interesting. It aims at giving not a news-sheet of passing events, but a solid and growing body of information for the benefit of municipal councillors and officers. The attitude which the *Review* takes up is particularly strong; it stands for the sturdy independence of the municipal corporations and their resistance to bureaucratic control from a central government. It aims at the revival of the glorious municipal life of the 15th century, when the corporations formed a definite estate in the country—to such an extent that the King did not engage upon a foreign war without consulting them, and Henry VII. even took their advice in the question of his own marriage. In defence of the present undoubted encroachment of central bureaucracy on the free action of municipalities, it must be urged that during a century and a half of steady decay this power for sturdy self-government was largely lost; the Municipal Reform Act, 1835, could do away with old abuses, but it could not create a race of city fathers capable of coping with the amazing burst of growth which took place during the 19th century. The result has been the modern town of to-day, which we imagine most people are ready to deplore. At this moment steps in a central government with a Town Planning Act, and other encroaching measures, acting on the principle that local government has had a fair trial of managing its own growth; the results—the bye-law suburb, for instance—cannot be called satisfactory, and it is now the time to see if central government can do any better. It is probable that at this very moment towns were awakening to their requirements, and the Liverpool private Act of 1908 indicates the beginning of this individual initiative; but we cannot help feeling that the Town Planning Act administered by a central bureau is going to produce good results in a shorter time, though at the same time we strongly welcome the revival of this strong feeling for local government.

The *Local Government Review* stands for this principle, and we respect it for it, for thorough Town Planning must rely for its existence on the higher standard of civic pride and the strength of local civic life. We note in this, the first number of the Fourth Volume, several changes. The most important is the issue of a Quarterly Supplement “to give a concise record of matters of permanent interest and value relating to every

branch of municipal engineering." Again, the July number will contain an illustrated Public Health Supplement, to appear at quarterly intervals, and the remaining issues will contain a supplement dealing with some special branch of Local Government work. The intention is to produce a kind of boiled-down résumé of permanent information for municipal councillors and officers. A most valuable feature of the *Review* is the Digest of Cases specially affecting the power and duties of Local Authorities in England and Wales, which is decided in any of the superior courts.

Städtebau (May and June)

The May number of *Städtebau* is practically devoted to an important competition which has been held for the southern portion of the suburb of Schöneberg, near Berlin. The first prize has been awarded to Professor Bruno Möhring, whose fine architectural studies for remodelling parts of Berlin were shown at the Town Planning Exhibition at Burlington House last year. The lay-out is considerably more formal than is usual in modern German planning, and suggests, if we may be allowed to say so, a slight influence of English garden suburban planning, though the long unbroken lines of houses are quite un-English. A fine feature is made of a park laid out on rising ground and connected by a broad mall with a market-place. We notice several well-known names among the competitors—Herr Hermann Jansen, Professor Berlepsch Valendas (whose plan is thoroughly Germanic).

The June number contains a Town Extension Plan for the University town of Erlangen by Herr Otto Lasne. Also an article on the value of trees in connection with architectural composition. The illustrations are entirely concerned with the chance planting of a tree in connection with architecture, and not with formal tree planting. The natural trees in the outer courts of the Louvre are a parallel case to several of these charming but fortuitous examples from German towns.

Les Amis de Paris

The first number of this new magazine appeared in April. It is both a public magazine and the mouthpiece of an Association. The object of the Association is briefly to acquaint citizens with the affairs of their city and to give them an effective means to obtain redress of grievances. One important object is the study and publication of the City Budget, and a comparison of the municipal services and what they cost, with those of other towns. Two other main objects of a militant character appear to stand out—the restraint of nuisances and the development of municipal advertisement.

With reference to the latter, one would think that Paris had little need to add more attractions to her programme and less need to advertise what she has ; but the " Friends of Paris " think otherwise. When the native French fly from the capital to enjoy the attractions and pleasures of the country and sea, Paris, they say, instead of falling into a vacation should offer a similar list of gaieties to tempt the foreigner to come and spend his holidays there. Frankly we do not attach much importance to this function of the Association.

The nuisance question is, however, a most pressing one. Those who knew Paris under the Louis Napoleon régime and immediately after are horrified by the amazing growth of nuisances of all kinds which have settled like a blight on the beautiful and airy boulevards which Haussmann opened up. It would seem that the wider and more airy the streets, the more space and pabula was provided for this brood of incubi to batten and propagate upon. Three things appear to outstand at a first glance : the unbridled use of wall advertisements which in many cases actually blot out the name tablets of streets and with delicate irony frame round the ingenuous impotent legend " *defense d'afficher* " ; the second is another form of advertisement by means of the hand-distributed prospectus, which has risen to an intolerable height in Paris. Outcasts from all nations—Niggers, Chineses, Esquimaux, Anthropophagi—thrust under the noses of passers-by different articles in the form of prospectuses of some sort or another. If you refuse them, they put them in your pockets or on your hat ; or you fly away from them to be told by some kind person that you have several different prospectuses pinned on your back. The circulation of the streets is entirely impeded by these swarm of distributors. The third abuse also causes obstruction to foot passengers, but by means of inanimate objects in the form of kiosques for bookstalls, car proprietors' offices, flower stalls, conveniences, &c. In the Grand Boulevards in a distance of $2\frac{1}{2}$ miles there are no fewer than 260 besides many other things, such as letter boxes, subterranean ventilators, and an infinity of other small impediments. Many of the concessions have recently been renewed for long periods of years, and it is an object of the Association to attempt a more reasonable use of the pavements.

The magazine also, besides articles on little known historical monuments of Paris, intends to prevent the spoiling of existing beautiful features. Thus we are glad to see that the point of the Ile de la Cité, which, incredible as it may appear, is again menaced (an appalling Moorish brace of bulb-shaped pavilions to take the place of the Henri IV. houses at the apex of the Place Dauphine having been frustrated some short time ago). This time it is a bridge which unfortunately Haussmann,

temporarily nodding, projected, and which we alluded to on page 169 of the first volume of our "Review."

We feel that the somewhat complacent note on the Champs de Mars does not display that keen critical eye which we hoped these Amis de Paris intended to flash on everything. The gardens, we agree, are admirable; but the effect of the houses facing on them deplorable. Not only should they have possibly been lower (as suggested by les Amis), but they ought certainly to have followed a prescribed design.

We note with interest that a competition between architects and sculptors is to be held for a large monument to occupy the centre of this garden on the axis of the Ecole Militaire and the Eiffel Tower.

Some Recent American City Reports and Plans:

New Haven, Rochester, Madison, Pittsburg, Boulder, Chattanooga, Altus

We have recently received the above seven reports, which are witness to the general activity that exists in America, and are of interest to us as showing the method in which the problem of city improvements is tackled. Under the term "Landscape Architect" there has sprung up a profession of town planners who have made reputations for dealing with city expansions and reconstructions, and rather than throw open the preparation of a town plan to the hazard of competition, as is done in Germany, it has become the custom in America—one might almost say the fashion—to commission one or more of these experts to make a survey of the town and suggest improvements. The result is published in a report, which has also the subsidiary effect—in smaller towns, at anyrate—of acting as a municipal advertisement, and by a display of civic activity attracting new residents; even if it shows some of its worst aspects in the report, it displays at the same time a commendable desire to improve them, and that general spirit of movement which is so admired by the American.

To examine and criticise these reports separately is hardly advisable; it would be impossible to do justice to them without an intimate knowledge of the local requirements which have called them into being, and they are not on such a scale of completeness and ambition as the Chicago, Washington, and Boston reports, which can be regarded with almost equal propriety as generalised treatises on the subject.

The following is a list of the authors of these reports:—

NEW HAVEN. By Cass Gilbert, Architect.

Frederick Law Olmsted, Landscape Architect.

ROCHESTER.	By Arnold W. Brunner, Architect. F. L. Olmsted, Landscape Architect. Bion J. Arnold, Consulting Traction Expert.
MADISON.	By John Nolen, Landscape Architect.
PITTSBURG.	By F. L. Olmsted, Landscape Architect.
BOULDER.	By F. L. Olmsted, Landscape Architect.
CHATTANOOGA.	By John Nolen, Landscape Architect.
ALTUS.	By L. P. Jenson, Landscape Architect.

In all these reports the one aspect of Town Planning which is hardly touched upon is that of housing. The American does not appear to insist on the immediate connection between the two as we do in this country. It is difficult to decide whether the reasons for this is, as suggested in the Rochester Report, that "the high standard of living, together with the correspondingly high standard of efficiency in work, on which Americans in general congratulate themselves," has kept housing on a higher plane than with us (New York certainly does not bear this out) or whether it is that housing ordinances and district building regulations are considered sufficient to prevent overcrowding; anyhow, the housing problem is hardly ever mentioned in their reports.

The chief preoccupations may be said to be these: Park systems and open spaces, the grouping of buildings into centres, and their linking up with the station approach to form a monumental piece of civic architecture, and traffic problems. The Pittsburg report deals almost entirely with the last phase, though there is also a somewhat lukewarm suggestion for a civic centre and a short park section.

Several of these towns, such as New Haven and Madison, have exceedingly fine existing centres, the result of the original planning, and only need amplifying and completing. Madison, situated on a narrow neck between two lakes has a fine new State Capitol placed in the centre of the square, from which radiate the main streets of the town. The plan is somewhat hard, and does not seem specially adapted to the site, but there is something fine about it. New Haven contains a charming centre originally the typical square of the New England village. It is planted with rows of fine elm trees, and on it are situated three churches of Colonial design; one side is overlooked by the buildings of Yale University. It is now proposed to connect this square with the railway station, situated on the harbour front. Rochester also has a fine scheme for a civic centre and station approach.

It is perhaps in connection with the park system that these reports are most instructive to us. In nearly every case they show a complete scheme for connecting the centre of the town with the surrounding country by

means of wide Boulevards or Parkways, and also for joining parks and gardens into rings round the town. It will be interesting to see how many of these in 10 years' time will have been carried out as completely as the Boston system. In the meantime, the very suggestion for such things is scarcely before our cities.

One thing which we notice is the exceedingly beautiful country with which so many of these cities are surrounded. We can well imagine the passionate desire of their citizens to preserve it from the hand that seems ready to befoul everything in the neighbourhood of a town. The contrast between the beauty of the surrounding country and the extraordinary scratchy and untidy look of the streets is astonishing. We have nothing to boast of in our streets, but they can rarely be so forlorn as the "State Streets" and "Washington Avenues" of many of these American towns.

The three smaller towns illustrated in these reports are of interest, though they appear to be well above the average of the little dusty industrial town which most urgently needs reform. Boulder is a small residential town near the Boulder Cañon, in Colorado, and its report, which is unillustrated, deals with small local improvements. Its "purpose" is rather well expressed: "The purpose of this report is to offer helpful suggestions, drawn from experience and observation in many other cities, and from a brief and limited though eager study of Boulder, bearing upon one of the broad fundamental questions at the best of all municipal activities, namely: What physical improvements within the reach of the city will help to make it increasingly convenient, agreeable, and generally satisfactory as a place in which to live and work?"

Chattanooga deals entirely with a proposed park system in order to preserve the amazingly beautiful scenery with which it is surrounded. Altus, in Oklahoma, is a rapidly-developing little town of the South-West which is providing itself at the outset with a civic centre, town park, and a symmetrical system of boulevards. This last report betrays the cloven hoof of town advertisement by the following tag on its cover:—

There is business to do
And a place for you
In Altus.

We are glad to see signs, as emphasized in the Rochester report, of a desire to make the fullest use of the natural individuality of the towns, rather than impose some exotic type borrowed from a foreign land. The Americans have entirely had a lesson in their dull gridiron applied unintelligently to irregular contours. "In making our recommendation and suggestions," says the Rochester report, "it has been our aim to

bear in mind the present characteristics of Rochester and the natural lines of its growth—to preserve the one and stimulate the other—and not to form improvements alien to the city. Rochester has a strong individuality among American cities—an individuality to be guarded and encouraged. Rochester at its best—improved and enlarged—must still be Rochester.” We are glad to say that a good deal of this feeling pervades the other reports.

We recommend some of our English boroughs to obtain copies of these reports. They will find them stimulating reading.

The R.I.B.A. Town Planning Conference Transactions

The Transactions of the Conference which was held by the Royal Institute of British Architects in October last year, have been published in a bulky volume. In it are contained a full description of all that took place—the inaugural meeting, visits, and excursions, banquet, &c., and the text of each of the papers that were read and a full report of the discussions which followed. The papers are fully illustrated, and in addition there are a number of reproductions of maps, drawings, and photographs from the two exhibitions—that at the Royal Academy and that at the rooms of the Royal Institute of British Architects. It may be gathered from this summary of what great value this volume should prove to the town planner, viewed, of course, largely from the standpoint of the architect. Several of the papers, it is true, deal with different aspects of the subject, but it is certainly as an architectural contribution to the subject that the volume is valuable.

In our October number of last year we had a short critical notice of most of the papers that were read; also an outline of the general scheme on which the papers were grouped. On glancing through them again we are led to feel the great permanent value of collecting together those chiefly responsible for Town Planning throughout the world, and letting them say what is uppermost in their minds. We notice well-known names connected with new and unexpected aspects of the subjects—Mr. Mulford Robinson, for example, whom we have usually associated with Civic Aesthetics, giving us a hard-headed paper on “Standardised Roads.” There is another value to these Transactions—the presenting before the public of Town Planning has always to be reinforced by practical examples and illustrations—Wren’s London Plan has done notable service in this way—and here in this bulky volume we have a whole mass of new evidence for the purposes of quotation. Mr. W. E. Riley’s paper, “City Development,” teems with figures and facts which are sure to find their way into contemporary literature on the subject.

We feel very strongly the need of renewing our stock of examples, lest the public weary of hearing the same thing dinned into their ears, and begin to think that Town Planning relies upon a few "wise saws and modern instances."

The section which we feel to be weakest—and this is the more remarkable because it is purely architectural—is the first, "Cities of the Past." The section starts off most hopefully with three admirable papers on "Ancient Town Planning—Hellenistic," by Professor Percy Gardner; "In the Roman World," by Professor Haverfield, and "Rome" itself by Dr. Ashby. And then, instead of a series of papers on Mediæval, Renaissance, Greek-Revival Town Planning, bringing the subject down to modern times, and so forming a continuous history, each section being treated by its expert, we find one paper by Dr. Brinckmann, of Aix-le-Chapelle—"The Development of the Town Planning Ideal since the Renaissance"—a special point of view, and a supplementary paper by the same author on an interesting bye-issue, "The Foundation of French and English Gothic Towns in the South of France." The history of Town Planning, apart from text books on principles of design, has yet to be written, and this was an opportunity missed of having it done in the best possible way.

We make this single cavil, and also point out that Dr. Stübgen's paper dealt with German Town Planning during the past two *decades*, and not during the past two *centuries*, and conclude by saying how grateful the Town Planning world should be to the Institute for holding the Conference and so thoroughly publishing its Transactions.

Civic Art. By Thomas H. Mawson. (Batsford. £2. 10s. net.)

To review this book, the last of the trio which have appeared in this country dealing with the theory and practice of Civic Art, is a bewildering task. Mr. Mawson's work is the largest, the most voluminous, and the most thoroughly illustrated of the three, and, in fact, it forms a perfect quarry of valuable material to which the town planner can come and help himself. Whether this book represents a quarry of material, or the material quarried out and built into a complete edifice, is the question which we have to decide; we rather think that neither of these three works—Mr. Unwin's, Mr. Trigg's, or Mr. Mawson's—are the final authoritative work on Town Planning, and yet we feel that we must be exceedingly grateful to these three experts for laying before us their stores of accumulated knowledge and rich experience.

Mr. Mawson's book is divided into four main divisions, the first two dealing with the subject in general, and the second two dealing with

descriptions of actual examples carried out or suggested by the author ; this latter part has therefore a strong personal touch about it and forms an illustration of actual civic design by an English landscape architect ; it shows Mr. Mawson to be the author of more Town Planning projects (as apart from pure garden design) than probably was supposed.

The first part is called the theory of Civic Art, and in four chapters Mr. Mawson discusses such questions as the place of the ideal in the city and the necessity of keeping it before the eye ; the methods of Education in Civic Design and the true use of its Technique ; Guiding Principles, such as the preservation of individuality and the obtaining of breadth without the sacrifice of detail. Then follows a comparison of towns with country, with the various intricate questions about art and nature which this comparison always gives rise to. This part ends with a chapter on the *Æsthetics* of Civic Art.

The second part, the Practice of Civic Art, comes down to more defined ground. Here most of the concrete aspects of the town are dealt with, such as traffic circulation, park systems, civic centres, monuments, boulevards, and street planting ; the illustrations in this part are particularly valuable, and gather together many examples which should prove of great value to the Town Planners ; many we have seen before, but many also are new or are presented under new aspects.

The examples of Town Planning in the third part contain the Bolton scheme (recently published), proposals for the City of Westminster, and the elaborate scheme prepared some time ago for the Carnegie Dunfermline Trust, in which this quaint old Scottish town appears rather fiercely slashed about by grand boulevards, diagonals, and town squares. The type of houses also proposed for the extension of this ancient Scottish town appear hardly suitable to the northern restraint of the surrounding buildings. The completed plan for Port Sunlight, embodying the competitive design of Mr. Prestwich, a student at the Liverpool School of Architecture, and some preliminary studies of Glyn Corey, are examples of a more villatic type of planning.

Among the parks, in the fourth part, are the gardens for the Peace Palace at the Hague, which Mr. Mawson won in open competition ; the park design to complete the Dunfermline scheme, and an elaborate scheme for Southport which was made some time ago, but which has not yet been carried out. There are also three smaller park plans—Hanley Public Park, Cleethorpes Recreation Ground, and Lever Park, Bolton.

All four parts of the book are magnificently illustrated, the half-tone blocks from photographs and the clearly drawn plans being beyond praise. The book contains a few slips which should be corrected in a

later edition : the Avenue du Bois de Boulogne (p. 73) is no longer called Avenue de l'Imperatrice ; it should be the Calton Hill, Edinburgh (p. 20) ; the statue of the Constable Anne de Montmorency is not, we imagine, by a sculptor of the name of Connétable.

Bagatelle et ses Jardins

The " Libraire Horticole " has published a charming volume on that quintessence of Parisian charm, Bagatelle, the Pavilion of gallantry, which after undergoing so many vicissitudes has passed into the hands of the City of Paris, largely at the instigation of M. Forestier, the Conservateur des Promenades.

When it is realised that as recently as 1903 this " domaine " in the midst of the Bois de Boulogne, was put up for sale by the owner, Sir Henry Scott, and would certainly have been built up with vast flats, the gratitude of all true " Amis de Paris " (and they are to be found throughout the world) is due to this indefatigable preserver of her beauties. There is something almost dramatic about the description of the visit of the sceptical Commission of the Municipal Council, in order to satisfy themselves that it was really worth the purchase of the city at seven million francs. " It was on a fine day at the end of June, 1903, that the Municipal Council, under the guidance of their President, M. Escudier, walked quietly through the old and half-abandoned garden ; its solitude, its charm, the still shadows of the oaks, through those thick foliage the cooled rays of the sun filtered, produced a moving impression on these judges, however sceptical, who heard beyond the thick trees and high walls the continuous and faint noise of the Bois de Boulogne, filled with promenaders. It was then that they felt the delightful and valuable tranquility of this oasis." The President and his Committee could not resist this appeal ; a bid was made offering 500,000 francs less, and by January, 1905, the property passed into the hands of the City of Paris.

This book is an example of the exquisite way in which the French do this sort of thing. Baldly, it is to show what the Parks Department have done to this property now open to the public. As carried out by the " Libraire Horticole," it is a delightful and fascinating history of Bagatelle. Its old life of gallantry under the Comte d'Artois, whose architect, Berlanger, built the pavilion in two months as it stood until 1860—Napoleonic memories of Josephine, divorced, coming to see the little Roi de Rome, son of Napoleon, " of whom she had not been able to be the mother " ; the Marquis of Hertford, and the riding lessons of the young Prince Imperial, and finally Sir Richard Wallace, who left his furniture and pictures to our Hertford House, and frankly by his alterations did not improve the surroundings of the Pavilion.

Gradually this account of Bagatelle leads the reader from the past into the present, and ends up showing the new rose garden and describing the actual plants and shrubs which have recently been planted.

Though the immediate setting of the Pavilion was formal, the gardens as laid out in 1770 by the anglo-maniac Comte d'Artois, were in the romantic style called "anglo-Chinese," and picturesque they have remained up to the present, as another example of formal architecture and picturesque setting.

Piranesi. By Arthur Samuel. (Batsford. 10/6 net)

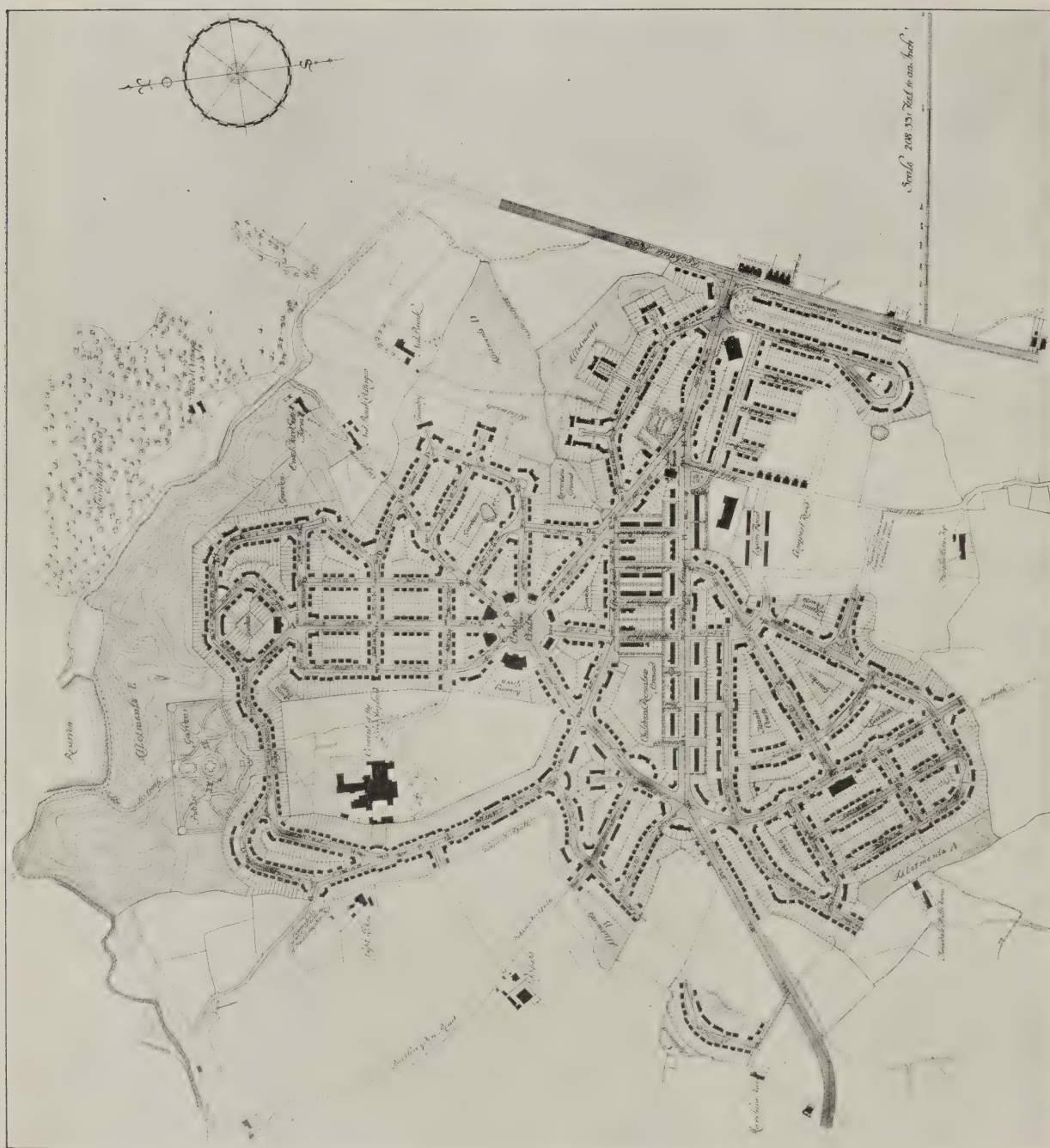
Piranesi, the 18th century Italian etcher, would not at first glance appear to come under the scope of Town Planning; but his great life-work—the setting forth of the glory of Rome, ancient and modern—gives his work a place in the vast temple which shelters the various altars of this cult. Piranesi's work on Rome consists of three types—an imaginative and almost inspired restoration of its ancient magnificence (see Plate 45), a delineation of its ruins as they existed in his day, in which may be detected a phrensied revolt against their decay and a sardonic comparison with the wizened pettiness of 18th century Roman life, and finally a faithful and careful rendering of the great buildings of Modern Rome; these last, though of great value, are naturally the least interesting as works of art.

In one direction Piranesi is of direct use and service at this day to students of civic art; his collections, exquisitely engraved, of Roman urns, vases, candelabrae, standards, obelisks, &c., provide a whole grammar of details of Town Furnishing of the highest artistic worth.

It is with regret that we are bound to confess that this, the first lengthy book to deal with Piranesi is so unsatisfactory; but we are bound to say so. The author is undoubtedly a man of great diligence, and he has collected together a mass of valuable information, but he has thrown it off his chest in an undigested and disordered form. There is an old-fashioned value in the division of a book into chapters and sections which cannot be denied, as the very act makes one group one's subject matter and introduce a certain amount of form into the composition. Mr. Samuel's study is like a modern tone poem which flows on from start to finish without a pause and with apparently no logicity of sequence. The effect produced on the mind is so confusing as to leave the reader with no more than a vague and hazy impression of the greatness of the subject. The bold and daring theories which Mr. Samuel advances, are by his method, rendering unconvincing and shadowy, and even his estimate of Piranesi's powers as a draughtsman appear confused and contradictory.

The Builder of June 2nd, contains an admirable leading article upon Piranesi, suggested by the appearance of this book, and we can only wish that Mr. Samuel has been able to collaborate with the author of this article whose judgment appears sounder, his intuition keener, and his logicity clearer; with Mr. Samuel's mass of facts, we should have had an authoritative study of this "unassailable etcher."

After cavilling at the subject matter, we must compliment the publishers on the form and illustrations of the book. In spite of the greatness of reduction, the illustrations are admirably reproduced, and make the book a delight to handle.



CHRONICLE OF PASSING EVENTS

Federal Capital, Australia

The conditions for the competition for the Federal Capital of Australia are now available and can be obtained as per the advertisement in this issue. The information supplied to competitors is very comprehensive and includes an historical and introductory note explaining the circumstances which have led up to the choice of the site and a description of it. The requirements mention specifically some 40 different kinds of and particular buildings required, from which it is evident that a city of architectural magnificence is contemplated.

The conditions are supplemented by an elaborate report on the climatic conditions and geological foundation, with maps contoured to 5ft. levels and also with coloured panoramic views of the site.

As mentioned in the advertisement the premiums are £1,750, £750, and £500; these premiums are for the design only and competitors have no further claim on the promoters. Drawings must be delivered at Melbourne by the 31st day of January, 1912. The final assessor is the Minister who adjudicates upon the report of a board consisting of an engineer, an architect, and a licensed surveyor.

At this stage it is impossible to judge of the wisdom in the choice of site, and for the moment we confine ourselves to comments upon the general conditions controlling the competition. These, it would appear to us are not satisfactory, and unless modified we feel sure that the response to the invitation will not include the best intellects of the day.

Firstly we feel that the time allowed is altogether insufficient for competitors in Europe and America, who after losing six weeks for transmission, have only five months during which to complete their designs. This might be sufficient for sketches, but at least twelve months clear should have been allowed for the preparation of drawings which would graphically do justice to the occasion.

Secondly, there is always dissatisfaction

where the competitor is to have no voice in the execution of his design. Under these circumstances we consider the premiums quite inadequate—the first prize should have amounted to at least £5,000, as we are sure that a serious competitor could easily spend £500 to £1,000 in the preparation of his design.

The third unsatisfactory point is the method of adjudication. The Minister for Home Affairs is to be the sole Adjudicator of the designs after they have been submitted to a Board, composed as described, but whose identity is unknown. The actual names of the Board should have been mentioned in order that they might command universal respect, and they should have been given definite powers. In the case of the competition for the Phœbe Hurst University of California, six assessors representing the heads of their profession in different countries were chosen; a similar procedure was adopted for the Peace Palace at the Hague.

We hope that something may be immediately done to amend these flaws in the conditions in order that the competition may be the complete success which the gravity of the occasion deserves.

Blackley Estate Competition

The promoters of this Competition were the Corporation of Manchester, who acquired the site for the purpose of erecting healthy cottages for artisans, with rents at from 7/6 to 10/6 per week.

The site is quite unique in that it is situated on an elevated plateau, sloping away on three sides into a ravine. The main road, Victoria Avenue, leading into the Rochdale Road, was laid out by the City Architect when the site was acquired, and forms the entrance to the Estate. Cottages were erected along this road and also along several subsidiary streets constructed at the same time.

The result of the competition proves that the scheme as so commenced was well planned. About 40 competitors sub-

mitted designs, but very few appear to have realised the peculiar conditions of the site, its rural aspect, and the kind of setting which best characterises the cottage of this type.

It was unfortunate that at the outset concessions were not allowed in regard to the Bye-laws regulating road widths, road grading, and road construction. The site suggests an important and easily graded road around the grounds of the Convent, which is situated in the centre of the plateau, with subsidiary non-traffic roads without footpaths meandering around the slopes of the ravines. With roads so reduced there is no doubt greater economy in construction, a more complete utilisation of the site, and greater possibilities for a picturesque treatment would have been secured. The Bye-laws with which competitors were to comply were designed to meet the requirements of a class of property entirely different, both as regards site and circumstance. We feel that the majority of the competitors were very largely influenced in their general treatment by these Bye-laws, with the result that most of the designs submitted showed a treatment of parallel roads on the level portions, leaving many undulating yet beautiful sites unapproached.

The scheme of Messrs. Cooper & Slater, which we illustrate and which was placed first by the assessors in the competition, was the best submitted, and while we cannot help feeling that a public garden such as that shown to the North is not required amidst such a pleasant stretch of wild, grassy slope, that at least half a dozen acres might have been utilised for building in a picturesque way, and that the allotment gardens in the positions shown were too exposed; yet for all that the scheme shows on the whole a site cleverly disposed. The picturesque Cooper Lane is preserved, access to every portion of the site is immediate and direct, the public buildings are in the right place, and advantage is taken in all cases of building

on both sides of the road. The second premiated design, by Mr. T. Carruthers, was, in its more formal parts, superior to the first. It showed a cleverly planned centre in its village green with more direct communication to the road to the West. The third premiated design, by Messrs. Salmon, Son & Gillespie, showed a very pretty general layout; it was superior to the others in the South West, but was more faulty in its parts and less carefully worked out.

We hope that, should the Corporation see fit to execute a design, they will first relax their Bye-laws and commission Messrs. Cooper & Slater to prepare a revised scheme.

Jesmond Park Estate, Rochdale

In our last issue we alluded (page 66) to the projected Garden Suburb near Rochdale, for which application had been made to the Local Government Board for permission to prepare a scheme promoted by the owners. We understand that this permission has now been given, and therefore this is the first "Owners" scheme to be started. The estate contains about 50 acres, of which 35 belong to Mr. S. Smethurst, J.P., the original mover in the matter. The reason for making a Town Planning scheme is one that will doubtless be felt by other owners; the site being so situated that no main traffic routes passed through it, the owners desired to construct the residential roads of a lighter type than the Bye-laws would allow; the only way of obtaining a relaxation of these bye-laws was through a Town Planning scheme.

The plan, as suggested, we reproduce, but we understand that it has not been definitely agreed to by the different owners. We notice one interesting feature: several of the roads have been laid in hollows which it is not proposed to fill up; the houses will be on the rising ground on either side, and will have the benefit of this added privacy of being above the road level. The light roads are to be



JESMOND PARK GARDEN SUBURB—ROCHDALE



MR. KELLY'S PROPOSED ROAD
FROM LIVERPOOL TO SOUTHPORT

40ft. wide, made up of 16ft. carriageway, 5ft. pathway, and 7ft. grass verges planted with trees and shrubs. The houses are chiefly in pairs; those in groups of three and four contain arched openings giving access to the back; there will be no back passages or yard walls.

Proposed Main Road between Liverpool and Preston via Southport.

An interesting scheme* has been made by Mr. Sydney A. Kelly, F.S.I., of Liverpool, for a new main road between Liverpool and Preston via Southport, laid down on the lines suggested in the Development and Road Improvement Funds Act of 1909, under Clause 8, Section 3, which gives the Road Board power "to construct and maintain any new roads which appear to the Board to be required for facilitating road traffic"; the road would also form a base line for the creation of Town Planning schemes throughout its length.

The existing main road from Liverpool to Preston takes a north-east course via Ormskirk, which is an old market town eight miles south-east of Southport and thence via Burscough, Longton, and Penwortham to Preston. The main road from Liverpool to Southport via Formby, *i.e.*, the coast route, is little better than a byroad in many places, and abounds in twists and turns, as revealed by a glance at the map. There is also another route to Southport via Lydiat and Scarisbrick, which forms an alternative to the Ormskirk route.

It can thus be seen that there are two main approaches to Southport, one from the south-west and the other from the south-east; but when we come to examine the roads to the north of Southport we

find a straggling byway through Crossens which turns in an easterly direction to join the Liverpool and Preston Road at Tarleton Bridge, so that all the road traffic to the north, either coastwise or inland, must of necessity concentrate itself on this length between Liverpool and Tarleton at one of the few connecting points shown on the plan. The site of the portion of the new road between Liverpool and Southport is placed midway between the old coast and the inland road, and this direct route can be obtained over purely agricultural land, reducing the distance between the two towns by some three miles and giving direct access to Liverpool and Southport from a large tract of land which at the present time is derelict so far as road facilities are concerned. In order to get a good connection with Southport at Ainsdale it is proposed to encircle the town with a circumferential boulevard or ring-strasse connecting Lord Street on the west with Blowick and Halsall on the east, and having its north outlet via Marshside and Crossens from where the coast road could be widened to Hesketh Bank, and by bridging the River Douglas at this point the existing main road is joined at Longton, thus reducing the distance between Southport and Preston from 20 to 15 miles.

The advantages of such a road are:—

- (1) The absence of gradients.
- (2) Shortened and direct access between town and town.
- (3) The relief of expenditure in widening the existing main road in such places as Formby and Ormskirk where the narrowness of the road renders it necessary.
- (4) The advantage of a wide traffic road (suitable for motor traffic and electric trams), which, owing to the small number of ownerships throughout its length, could be secured at a reasonable cost.
- (5) The Lancashire County Council and the Southport Town Council, and many of the local authorities concerned have shown great interest in the scheme, and the proposals have been incorporated in some embryo Town Planning schemes.

* Mr. Kelly's proposed road was referred to on page 76 of the last number of "Town Planning Review" in the note on the Great Crosby Urban District Council scheme. See also plate 41 K. K.

The Trevor Estate Competition

The competition for the Trevor Estate, Knightsbridge, which we announced in our issue for October, 1910, has been assessed, the first premium being awarded to Messrs. Horace Field & Simmons and Mr. G. Farey, the second to Messrs. H. S. Goodhart and Rendel, and the third to Mr. Ernest Shaufelberg. It may be remembered that this is a small estate containing about 100 houses, and the owners contemplating rebuilding, hoped to secure a rather improved lay-out and a uniformity of design which would add to its attractiveness. This is a distinctly better plan than allowing irregular blocks to be put up at random, while at the same time the estate being so small, it would be impossible to obtain any great continuity of effect as in the case of the great ducal estates. At the same time we welcome this move on the part of landowners to consider the appearance of their property as a whole and also the neighbourhood in which it is situated.

We do not propose to analyse the merits of the different schemes sent in, but refer our readers who may be interested to the "Monthly Review of Civic Design," which appeared in the *Builder* for June 2nd, in which a full description is given and the principal schemes illustrated. The interesting question is there raised as to how far an estate should be developed for its own interests and how far the claims of the public, with its constant desire for through connections, should be considered. In this instance the through connections, by opening up communication with a lower class of property, might quite appreciably lower the value of the land.

It is interesting to note how the point has been dealt with by the competitors. The design placed first is exclusive from the estate point of view, the third has an ingenious and somewhat marked connection, the second takes the broad democratic point of view and shows a broad open through connection.

Thurstaston: Proposed New Residential Suburb for Liverpool

Amongst our large provincial towns Liverpool is exceptionally fortunate in possessing suburbs and surroundings of great natural beauty and variety. What other provincial town of first importance can boast of having within five miles of her centre scenes so well wooded as that round Woolton Hill, seaside suburbs like Waterloo, New Brighton, and Wallasey? estates commanding views of river and shipping like those at the Dingle, Cressington, and Rock Ferry?

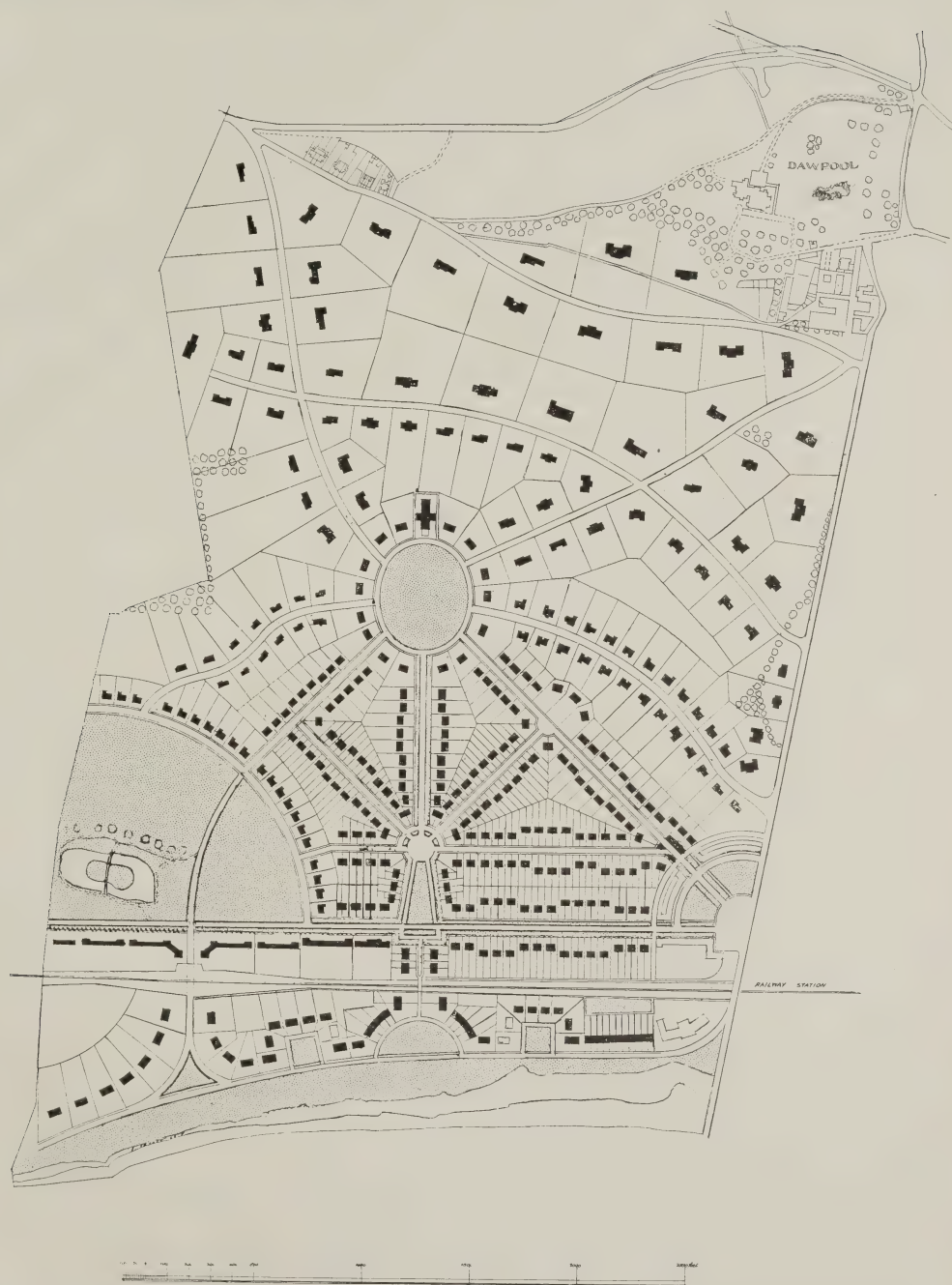
These are already well developed, but unfortunately their very proximity to the centre of the city has not only robbed them of much of their natural beauty, but has at the same time more or less been responsible for their permanent damage by the intrusion of unfortunate and rigid developments such as have everywhere grown up around our great cities as a result of the cast-iron bye-laws of the Public Health Act of 1875.

But the undeveloped localities in the immediate environment of Liverpool are as yet by no means entirely exploited. The peninsula of the Wirral, surrounded as it is by water on three sides, still remains to a large extent unexplored. Nine-tenths of its area is entirely rural, and much of it is as yet heath-covered common and virgin soil.

Its western shores, rising gently to wooded hills, command magnificent views of the purple mountains of Wales, which are seen to exceptional advantage across the sands of Dee.

It is at such a spot that Thurstaston is situated, but eight miles by road from Woodside or Seacombe Ferry; and here it is that the new seaside residential suburb, illustrated in our frontispiece, is proposed to be laid out. The site was originally part of the estate of Dawpool, the residence of Thomas Ismay, Esq., at whose death it was sold to Messrs. David Roberts, Son, & Co., of Liverpool, who

PROPOSED GARDEN SUBURB



THURSTON
CHESHIRE

propose to develop it in this way. Ultimately it will no doubt be connected with Liverpool by an electric railway, which it is hoped will circulate the Wirral and connect up the present London & North-Western and Wirral systems, both of which now terminate at West Kirby without connection of any sort. But the suburb is not to be dependent upon the doubtful enterprise of these lines. It is proposed that directly sufficient houses are erected, a service of public motor vehicles shall connect it with Park Station (Birkenhead), a system which will provide a charming drive at a popular fare occupying but twenty minutes either way.

It is not proposed that the new town shall become a popular watering place, nor is it proposed that it shall be converted into a resort for day trippers desiring a few hours by the sea. It is designed exclusively as a seaside residential suburb.

There will be verandah front houses by the sea, clustering around pretty greens, and a green sward will stretch from the sea front to the edge of the cliffs, which slope away to the sea. For those who prefer a more sheltered site than is to be found actually facing the sea, detached and semi-detached houses will be erected on tree-lined roads having immediate access to the front, but on the other side of the line. Where the land is low there will be a park of ten acres extent, where games may be enjoyed. Entering the suburb from the station will be a green plaza surrounded by a crescent of shops, and radiating from here will be tree-lined boulevards giving immediate access to every portion of the town. Whilst provision will only be made for the accommodation of such of the artisan class as may be locally employed, semi-detached houses will be erected both for the middle class of moderate means desiring gardens which can easily be kept in order without expense, and also for others who, better off, may desire the isolation of one, two, three, or four acre plots. It is proposed that these latter should occupy the rising

ground to the rear, and that whilst the style of the development will be somewhat formal in close proximity to the front and to the station, this formality will, as it were, melt away towards the ancient village of Thurston; and as the suburb extends into the hills these informal roads will be picturesquely designed without side walks or curbs, and will have grass-bordered margins, like country lanes.

The whole development should form an attractive place of residence for the Liverpool business man. It is early yet to decide whether it can be carried through under the ordinary by-laws or whether it will be necessary to make it a town-planning scheme, but in whatever way it is done restrictions will be placed upon the buildings so as that when completed it will form a homogeneous whole. The houses will be cream-tinted stucco to an approved architectural type of design.

The design for the lay-out of the estate has been prepared in the School of Civic Design, Liverpool, and the promoters of the enterprise, Messrs. David Roberts, Son, & Co., are desirous of making the development a model scheme. It will be of interest to all those who regard with watchful anxiety the development of our large towns to find that a firm like that of Messrs. David Roberts, Son, & Co., who, although laying no claim to do more than conduct the business on strict business lines, yet should see fit when such an opportunity occurs to develop an estate like this in such an up-to-date and attractive way. It may be of interest to note that as far back as 1875 the land for Liverpool's finest boulevard, Princess Avenue, was given by this firm.

At the Royal Academy

There is little in the architectural section of the Royal Academy this year which comes under the heading of Town Planning; it is almost entirely a collection of isolated architectural units. The building which comes nearest to Town Planning, by reason of its associates, is Sir Aston Webb's

last contribution to the South Kensington group, the Royal School of Mines and Imperial College of Science and Technology.

Sometime we should like to attempt a short article on this collection of gigantic buildings—the Albert Hall, Imperial Institute, Natural History Museum, Victoria and Albert Museum, etc.; it illustrates better, because on a more colossal scale, than any other group of buildings in this country the Victorian method of monumental design as applied to towns. We trust the neo-Georgian era in which we live will not witness the like.

Corey, an American Garden Suburb

Corey is an exception to the generalisation which we have been guilty of indulging in, viz.: that American Town Planning is hardly occupied with the housing question. Here is an example of a Garden Suburb initiated by private enterprise in a manufacturing district in view of the erection of a new steel works in the vicinity. There is then, so far as we know, not an exact parallel in this country, for where such a suburb has come into existence, it is generally financed, in the first instance at any rate, by the owners of the works: the co-partnership and other communities, again, are not built to house the workpeople of a single concern.

Near the town of Birmingham, Alabama, the centre of a huge coal and steel district, the United States Steel Corporation has purchased 2,060 acres on which it is erecting large works. A land syndicate of Birmingham, under the presidency of Mr. Robert Jemison, has bought 255 acres contiguous to this, which it is proposed to develop on garden city lines. The works themselves will be smokeless as they are operated by an electrical plant situated at some distance away, and the site is part of it wooded and of undulating contours. The plan, which is by Mr. G. H. Miller, Landscape Architect, of Boston, is perhaps rather typically American in its squareness, but it contains

a civic centre, with a group of fine public buildings set in a formal park, with a square in front, the buildings surrounding which (bank, hotel, &c.) conform to a fixed architectural design; several of these have been built. All possible existing trees are being preserved, and the curving lines of the streets to the south of the Civic Centre indicate the rising ground. There are 1,256 building lots in Corey, or an average of slightly less than five to the acre. Apparently, land speculation is not discouraged, as since the first sale of lots in June, 1910, many of them have been re-sold and have realised profits ranging from 25 to 100 per cent. This may be encouraging to the promoters of Corey, but cannot have a good effect upon the ultimate rent-paying inhabitants.

We are interested to hear that at a large brick works near by, with a capacity for turning out 70,000 per day, all the bricks are moulded by hand, in order to give them the required texture; Corey is fortunate to be able to build its houses of a sympathetic material which will harmonise with the general setting of greenery.

Stockport: Proposed Town Plan

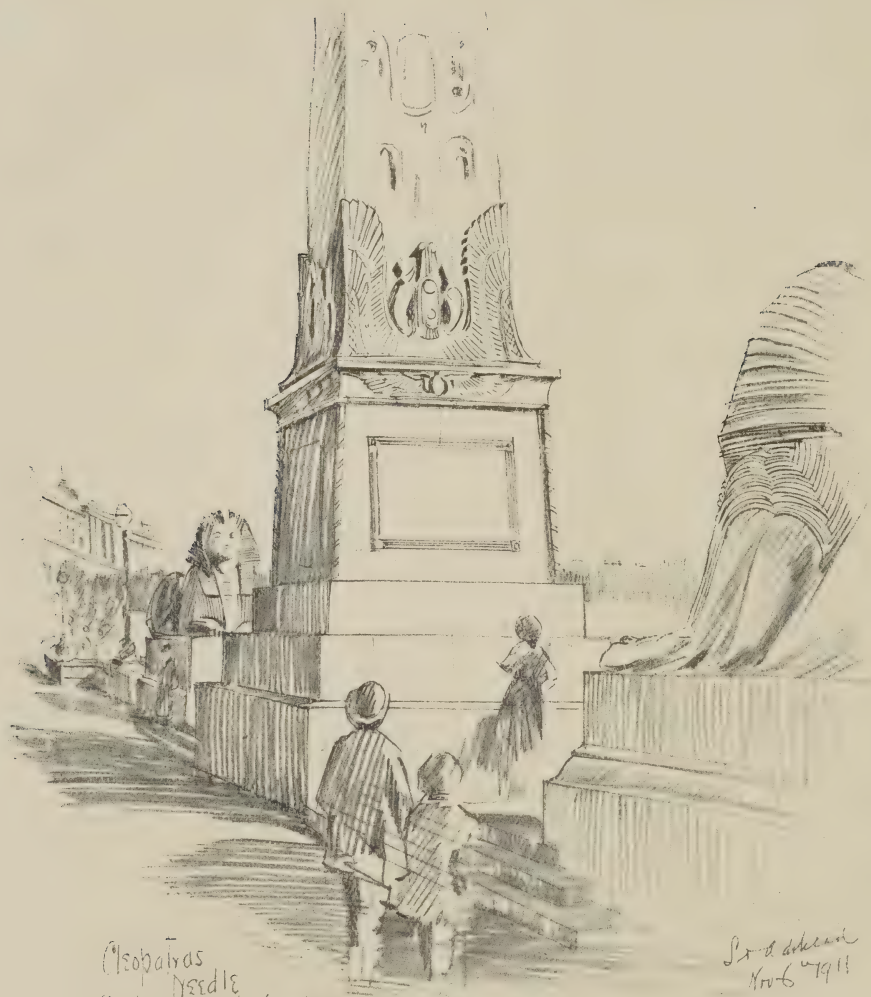
We hear that the County Borough of Stockport is contemplating a Town Planning scheme of the utmost importance. The proposed area is to be some 5,000 acres, of which approximately 2,300 are in the Borough and the remainder are situated in the following Urban Districts which surround the Borough:—Denton, Cheadle and Gatley, Hazel Grove and Bramhall, Heaton Norris, and Bredbury and Romiley. The important feature of this scheme is that practically the whole of the undeveloped land within the Borough is proposed to be included in the scheme, and the portions of the surrounding Urban Districts form an unbroken suburban ring, so that this town planning scheme will practically provide a complete "Town Plan" for Stockport—a thing which at first hardly seemed possible under the Act.

The main idea of the scheme will be (1) to enable certain main roads to be widened, (2) to make good arterial and main communicating roads into the surrounding districts, (3) to limit the number of houses per acre, (4) to restrict the class of property to be erected in certain districts. Thus if the main lines of communication are fixed, and the number per acre and type of houses and class of property for districts settled, Stockport may feel pretty secure as to its future growth; the smaller roads can be filled in as required, and small competitions might be held for this subsidiary work, which

depends for so much of its effect upon the quality of design.

There is another point which we think the scheme should contemplate at the outset: the purchase or provision of sites for public buildings (schools, branch libraries, &c.) and open spaces. It is exceedingly desirable to consider these *before* the land is developed: cheapness and artistic effectiveness go together in this forethought.

We shall watch this Stockport development with the greatest interest, and hope soon to give some further and more detailed information.



Memphis
Pyramid
Sphinx and monument

Prof. J. H. Johnson
Nov 6 1911

THE TOWN PLANNING REVIEW

Vol. II

October, 1911

No. 3

EDITORIALS

KING EDWARD VII. MEMORIAL STATUE

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In choosing the site for the King Edward VII. Memorial Statue at the Piccadilly end of the Broad Walk in Green Park, importance was attached to placing the statue in close connection with Buckingham Palace and the surrounding parks. However desirable this may have been, it was an unfortunate circumstance which decided that the exact position should be in the Broad Walk. Whether or no this walk be one day continued as a new street across Piccadilly, at the present moment it is merely an approach from Piccadilly to Buckingham Palace, constructed primarily so as to afford a vistral view from Piccadilly across Green Park on to the Queen Victoria Memorial. The placing of a statue to King Edward VII. in this walk is necessarily fraught with insuperable difficulties.

Emergency 26 Jan 1912
Everyone will agree that a statue so situated should be made subsidiary to that of Queen Victoria, and whilst King Edward, owing to the circumstances of the exceptional length of reign of his Queen mother, necessarily occupied during the greater portion of his lifetime a subsidiary position, it is questionable good taste if a subordinate position should be perpetuated in his statue also. Be this as it may, out of respect for Queen Victoria and the importance of the statue which has been erected to her memory, it is not conceivable that, placed in such a position, it could do other than face toward it. In thus respecting her statue, however, it would necessarily be placed with its back towards Piccadilly, and so towards the big crowd which desires to do it homage; and not only would this statue so placed be a most unfortunate spectacle as seen from Piccadilly, but in addition it would block the

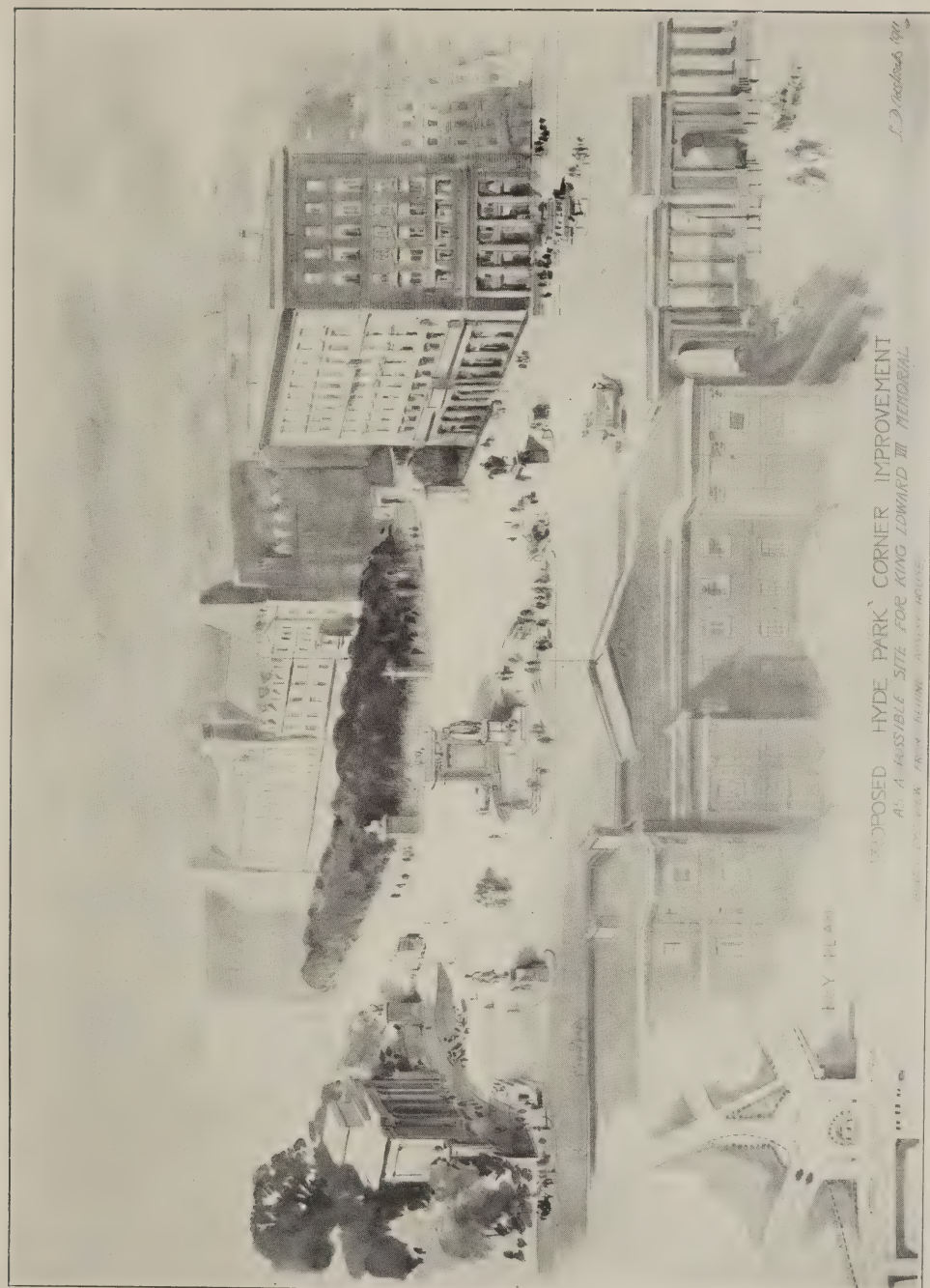
vista on that of Queen Victoria—the only valid reason for which this approach can be said to have been constructed.

This being so, it would seem unfair both to architect and to sculptor to expect them to find a satisfactory solution of a difficulty so unfortunately involved.

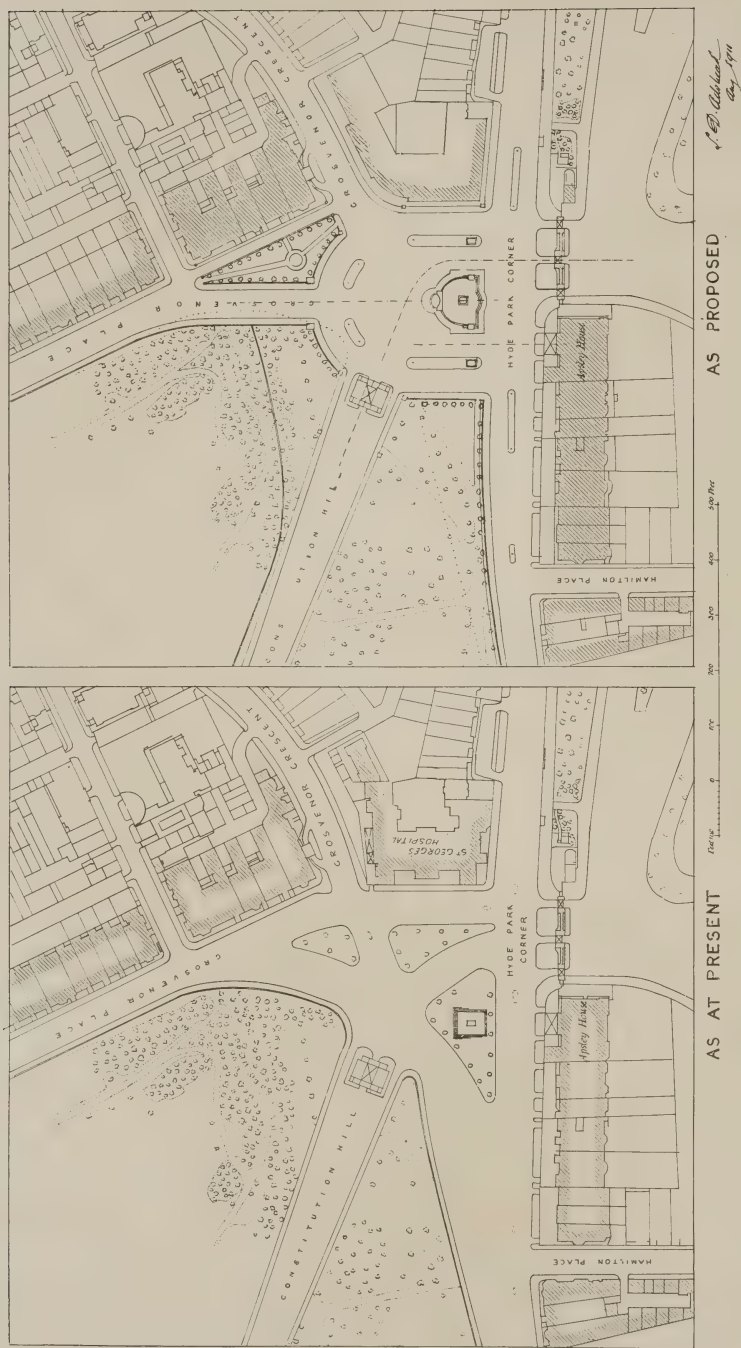
A scheme for the erection of a statue to King Edward VII. should be considered primarily in connection with the immediate accessories of its site. It is quite evident that no site of the importance of that devoted to the Queen Victoria Memorial can be found in immediate proximity to the Palace; but it must be obvious that a site at Hyde Park Corner, if it could be found, would be equally important architecturally; and as regards association, equally good, if not superior.

The suggestion of Professor Adshead is that the erection of the statue be combined, as in the case of that of Queen Victoria in front of Buckingham Palace, with a scheme for an improved site. Hyde Park Corner, magnificently situated in London as it is, between the main entrances to London's two most famous parks, and forming as it does a fore-court to London from the eastern approach, is after all but a forlorn and shapeless space, its awkward angles being only emphasized by the singular beauty of the architectural objects with which it is surrounded. Not only is Hyde Park Corner, as it at present exists, nothing more æsthetically than an involved intersection of roadways, a waste of asphalted pavement and wood block, and a confusion of trees, but also from the point of view of a traffic centre it is extremely dangerous. The amount of traffic which passes along Piccadilly is daily increasing, as also is that coming up Grosvenor Place and passing across into Hamilton Place and so up Park Lane, and not only is it increasing in volume, but what is still more important, is increasing in rapidity.

The traffic of London, thanks to our splendid police organisation, is recognised to be the best controlled of any city in the world; it depends for its regularity of movement, however, not on wide streets and well-arranged street intersections, but almost entirely upon the well-organised control of the police. Properly to control, however, so wide a crossing and one of so acute an angle as that between Grosvenor Place and Hamilton Place, is quite impossible. At the present moment the negotiation of this intersection during the busy times of the day is nerve-wrecking to drivers, and dangerous in the extreme. Whilst the Marble Arch to Victoria traffic can be regulated by the police so as to be made to take the inter-



PROPOSED SITE FOR KING EDWARD VII. MEMORIAL
AT HYDE PARK CORNER



PROPOSED SITE FOR KING EDWARD VII. MEMORIAL
AT HYDE PARK CORNER

section opposite Hamilton Place, the Victoria to Marble Arch traffic may make the intersection anywhere between Apsley House and Hamilton Place, and the Victoria to Bond Street and Piccadilly traffic may make the intersection anywhere between Apsley House and the Carlton Club, and this variation of intersection, dependent upon the opportunity of the movement, the police are now powerless to control.

The danger of this traffic centre has during recent years become an increasingly grave one, and improvements for widening Piccadilly, and thereby providing greater space and more frequent opportunities for making the intersection, have been made from time to time; but with the increasing volume of motor traffic and its increased rapidity, the feasibility of averting the danger by increasing the width of Piccadilly has proved to be altogether impossible.

With traffic rushing at high speed in all directions no space can be made sufficiently wide to obviate the danger of a collision. The remedy is not one of increasing space but rather one of limiting space and controlling direction, and hence this Hyde Park improvement scheme has been combined with the provision of a site for a King Edward Memorial, accompanied not only by an improvement in the shape of the space round about, but also by an improved means for controlling the traffic. In addition the Green Park, instead of being contracted, is increased in area, with its outline so improved that an entrance is provided which will tempt pedestrians passing up Piccadilly to take the more pleasant parallel pathway through the park.

The cost of the improvement is one which would fall by arrangement on public bodies, and would merely consist in an alteration in the line of the park railings, taking up and replacing road surfaces, and putting down turf. The statue of Wellington would be removed a few feet further east and a corresponding site would be found on the west side for a statue of Marlborough to be erected at some future date. Such an improvement to Hyde Park Corner would of itself form a memorial to King Edward of lasting worth. The cost of the statue itself, to be provided out of the funds of the Memorial Committee, need only be comparatively small. There is no need to provide a colossal statue such as that which has been erected to Queen Victoria. As to its exact form, that is a matter for the architect and sculptor to decide.

Finally, to sum up the main points of this scheme, which

we strongly commend, Piccadilly would be emphasized as a main through thoroughfare. A symmetrical "Place" would be formed off Piccadilly. The memorial statue would be the climax of the "Place," and statues of Wellington and Marlborough appendages. The Royal route between Constitution Arch and the Arch into Hyde Park would be preserved. Green Park would be increased in size and improved in shape, and Grosvenor Place would enter the "Place" in a symmetrical and dignified way.

AUSTRALIAN FEDERAL CAPITAL

In our last issue we commented on certain unsatisfactory features in the competition for a Federal capital for Australia, and we have to announce that so far, neither in the question of extension of time, or respecting the method of adjudication, have any modifications of the conditions been announced. This is particularly regrettable, for we feel very strongly that this ought to have been treated as a world-wide competition, and so to have satisfied universal requirements of professional practice that it would have evoked a general response from the profession.

We understand that the American Institute of Architects has barred its members from competing on the ground of the unlimited number of drawings which may be submitted, and the Royal Institute of British Architects is also dissatisfied on the score of the assessorship.

Altogether, although the information supplied to the competitors has been all that could be desired, it is evident that through a neglect of the essentials of professional practice, the competition will hardly be more than local in its appeal. Australia might have had the brains of the world at her disposal—how much is it to be regretted, then, that on an occasion of such importance she should have wilfully neglected to avail herself of them.

THE CRYSTAL PALACE

The suggestion that the Crystal Palace should be purchased is one to which we have no hesitation in giving hearty support.

One of the features of the proposal, we understand, is to establish a permanent museum of Town Planning; this would act as an addition and supplement to the admirable architectural courts already in existence. A general Bureau of Information might also be established which would collect material from abroad and arrange it to form itinerant exhibitions for the purpose of arousing local interest and explaining the value of Town Planning.

Another suggestion of great interest is to create large-size models in the grounds, on a scale impossible in London. The educational value to the public of actual examples—perhaps one-eighth full size—of garden villages and suburbs, of picturesque and formal gardening and planning, would be great, and the interest of these matters would be made manifest in a manner far more vivid than by mere drawings.

A training school in Citizenship, in Civic Design, and Landscape Architecture, for which the Palace would make an admirable centre, is also suggested. These are merely points which concern Town Planning, but they are sufficient to show, if only from one point of view, the possible value of the buildings and grounds to the nation.

MUNICIPAL TOWN PLANNING SCHEMES

We continue our series of articles on Practical Town Planning Schemes this issue, by an article on a most important and comprehensive scheme for the development of the County Borough of Middlesbrough, which has recently been presented to the Streets, Plans, and Sanitary Committees of the Corporation by the Borough Engineer, Mr. S. E. Burgess, M.Inst.C.E., Fellow of the Royal Sanitary Institute. The special interest of this scheme is that it deals with practically the whole of the unbuilt-on area within the borough. Mr. Burgess is to be congratulated on having availed himself so fully of the possibilities of the Act, and the town on the prospect of the scheme being carried through. We hope in a future number to continue Mr. Nettlefold's Birmingham proposals and those of other towns such as Sheffield, Stockport, &c.

THE AUTHORSHIP OF TOWN PLANS

We feel very strongly on the question of the personal authorship of town plans which have not been determined by mere utilitarianism or drawn up under ordinary official routine. It is notorious in the case of architecture how little the name of the artist who has designed a great building is associated with it in the mind of the public. There is a kind of ridiculous architectural etiquette against the visible signing of a building by its author, though no one ever questions the propriety of a painter or sculptor doing the same thing. Perhaps the fact that the architect does not actually lay one brick on another may have made him diffident about writing his name on a building, though we have heard it whispered that a sculptor sometimes labours under a similar disadvantage of not sculpting his own marble. Anyhow, the architect has the chance of signing his work, while the town planner has not—unless he inlays it with pebbles in the pavement of the principal square—for it is quite possible that not one of the actual upstanding buildings is the creation of his mind, and yet the whole artistic effect may be due to his plan. Happily, it appears to us there has been a tendency to remember the credit due to the planner—Major L'Enfant's name is inseparably connected with Washington and Baron Haussmann's with Paris—and much of the pioneer work of Garden City Planning in this country is, we feel, associated with the names of our foremost town planners. It is therefore with considerable regret that we must confess to having been guilty of remissness ourselves; in our last number we published on plate 74 the plan for the Jesmond Park Garden Suburb, near Rochdale, without a word as to its authorship. We therefore apologise to Mr. Gilbert Waterhouse, of London, the author of this excellent plan, and trust that our readers will make a note of the fact.

LANDSCAPE ARCHITECT OR CITY PLANNER?

The article in our last number on a suggested International Federation of Town Planners, and incidentally a Society of Park Designers, has called forth some considerable correspondence. We publish in this issue an article by Mr. Thomas Mawson dealing with the formation of an English Association of Landscape Architects. While thoroughly approving the general tenor of Mr. Mawson's lucid article, we feel that there is considerable

uncertainty about the use of the term "landscape architect." In America we understand that this has reached an acute stage, and we shall shortly have something to say on the matter. But it appears to us that Mr. Mawson's "landscape architect" would be better defined as a "town or city planner." The engineer, surveyor, sociologist, housing reformer, landscape designer, and architect all meet in the personality of the complete city planner; he naturally has leanings towards one or the other of these special aspects of the science, but his work touches them all, and we feel that the somewhat vague and misleading term landscape architect hardly expresses this comprehensive attitude so well as the word town or city planner. It is after all merely a question of terms, but it is advisable to get these terms settled as soon as possible, to avoid misunderstandings.

In our first article Professor Adshead deals with the question as to which of these various particular experts is the more likely to develop into the general city planner.

DÜSSELDORF COMPETITION

This competition is of such importance that we intend to devote an article to it in our next issue. The interest of it to us is not so much in the actual problem of Düsseldorf, as that it gives us a very complete idea how this question of scientific city extension is tackled in Germany. We have several towns in this country who are taking up Town Planning in this comprehensive way, and it cannot but be useful to see what care and trouble is expended on the preliminary work by our German colleagues, who, as we recognise, have been studying this science much longer than we have.

The Builder for September 29th gives an accurate translation of the verbal conditions of the competition, which are full and comprehensive, but of greater importance is the list of 28 items which are supplied to intending competitors, and which constitute as it were a complete survey of the town. It is this budget which we feel is the most interesting feature of this competition to us, for it enables us to realise the material which the German town planner gets together before he sets to work on his plan. We hope in our next issue to deal piecemeal with these items, and also, if possible, to include a description of the existing town of Düsseldorf.

AMERICAN CITY PLANNING

With our article upon the re-planning of Philadelphia by Mr. Groben, Architect of the Department of Public Works, we complete our study of five great American schemes, which we think sufficiently explain the transatlantic attitude towards City Planning—Chicago, Washington, Boston, Cleveland, and Philadelphia illustrate the various phases of this movement in its largest connection. We have further noticed from time to time some of the schemes for smaller towns and the recognised method in which their proposals are presented—by means of reports drawn up by experts in Town Planning. Mr. Thomas Adams also concludes in this issue his articles on New York, which form, as it were, a general survey of its existing condition.

In some respects Philadelphia is the most interesting of the five suggestions for improvement; the scheme proposes what appears to us at a first glance the manifestly impossible—that is to say, the cutting through from the actual centre-point of the city of a broad parkway connecting it with a great park. Those who are accustomed to regard American City Planning as architectural dreams may well smile at this, but this smile will turn into the gape of astonishment when they hear that this is actually a practical proposition, as they say, and has been put in hand. If this is possible in America, why should not some great city reconstruction schemes be undertaken by us?

TOWN PLANNING CONFERENCE AT WEST BROMWICH

With Some Notes on the Profession of Engineering in its Relation to Town Planning

Introductory

This important Conference, held under the auspices of the Institution of Municipal and County Engineers, presented for the first time, and in a very representative way, the science of town planning as understood by the engineer.

The papers read before the Town Planning Conference in London, which was inaugurated by the Royal Institute of British Architects in September of last year, when compared with those read here by the Engineers, show a very striking difference in the attitude of the two professions towards town planning, and moreover prove conclusively that both architects and engineers have each their part to play. Neither are competent solely and entirely to take upon themselves the whole of the responsibilities affecting so vital a matter as that of town planning.

Unlike the conference held in London, where engineers, surveyors, antiquarians, landscape architects, sociologists, &c., were largely in attendance, this conference was very exclusive. The papers read and opinions expressed emanated almost without exception from engineers.

In the eyes of the town planning world, therefore, it may be said to have focussed the particular point of view of that profession.

The town planner of to-day may emerge from almost any profession engaged in one way or another in the construction of towns and in the development of suburbs. All that is required in order that he may be justified in calling himself a town planner is that in addition to such primary qualification he must possess sufficient knowledge of the technicalities of other professions to be able to co-ordinate these with his own.

In America we have had town planning schemes like that of Chicago by architects, and we have had at the same time a great number of schemes prepared by landscape architects. Indeed the profession of landscape architecture in America is in a much more flourishing condition than elsewhere, encouraged as it is there by the universities. The landscape architect of America is an intelligent horticulturist and surveyor in one, and he is qualified to do town planning in a way not understood here.

In England there still exists great variance of opinion as to which profession most nearly possesses the necessary qualifications. The real

issue lies between the architect and the engineer, whilst surveyors, landscape architects, and sociologists have certainly a voice in the matter.

The solution of the difficulty is unquestionably one of compromise. The truth is that none of these professions are alone equal to undertake in an entirely satisfactory way town planning from commencement to completion, and it is equally true that none of them can carry out even so much as his own part satisfactorily without that breadth of understanding which enables him to summarise and co-ordinate the major interest of all. The town planner of the immediate future, at anyrate in England, will therefore of necessity be, in the first place, an individual member of one of the well-known technical professions, or to put it in another way, a town planner by profession with distinctive qualifications as a member of one of the other professions. It is with this point in view that the School of Town Planning at the University of Liverpool has amongst its lecturers distinguished representatives of the allied professions, and it is for this reason that it accepts no students who are not already qualified in one of these professions.

But it may be asked where in actual practice is the place for each? In the preparation of a town planning scheme under the Act, we are required first to decide upon an area which is to be enclosed by a red line—Map I. The preparation of this, and all that is preliminary to this, is rightly the work of the surveyor. Map II., on which are to be shown the principal roads and other features, is rightly the work of the engineer; whilst Map IV., which is the final map, should rightly be prepared by the architect. At the same time, correctly speaking, none of these should be carried through without the collaboration of the others. Fortunately this, in the main, is what in England is now actually taking place. The engineer and the surveyor are together working out the preliminaries of town planning under the Act, whilst architects are engaged in executing schemes where the Act has not yet come into force; but there is danger ahead. There is a possibility that the engineer, flushed with the success of his skeleton scheme, may endeavour to lay out the details of an estate with fatal results, and there is also danger that the architect, who perforce may have got in touch with a very large scheme, may take upon himself duties which rightly devolve upon the engineer. Considerable interest is at the present moment being directed to this subject, both in conference and in the press, and it would seem to be an opportune moment for the formation of a Society of Town Planners; the members of which drafted from the ranks of the technical professions should be specially qualified by experience or training to take a part in the planning of a town.

The papers which were submitted at the West Bromwich conference

have been published in pamphlet form and should prove a very valuable addition to the existing literature on town planning. Taken as a whole their value rests on their lucid exposition of technicalities.

They deal with ideas rather than ideals, and in so doing justify themselves. The municipal engineer by reason of his official position and the amount of attention he must necessarily give to what is after all the conduct of municipal affairs is not naturally placed in surroundings which are congenial to much idealising, and therefore as arbiter, fancy free, in the solution of artistic problems, the tendency is for his ideas to be matter of fact, perhaps crude, and possibly immature. Unfortunately this is but too evidently exemplified by the remarks of several of the lecturers who have ventured in the æsthetic field. Statements about the use of terracotta, coloured bricks, decorated lamp standards, &c., are very depressing, and would result in nothing better than a continuation of the present bourgeois architecture in its most garish and exaggerated aspect.

Or take, for instance, some of the plans for cottages designed by engineers. No doubt the author of a group we have in our mind is doing very excellent work in the laying out of his town, but he is heaping upon himself discredit and condemnation in venturing upon architectural design.

Town planning as understood by the more responsible members of the engineering profession, however, is town planning in its broadest sense, and, in a word, means control of the development of cities as a whole. Within this boundary the engineering profession is certainly at the moment the one best qualified to direct the initial forces which control the expansion of towns. He understands the difficulties, both legal and technical, which confront his council at every turn. He is in possession of a mass of statistics amassed by himself and his predecessors, not available to others. The Town Planning Act of Mr. Burns has conferred upon him responsibilities not only of administration but also of organisation and creation hitherto uncalled for. These new powers have opened up to him vistas of opportunities which only by additional study will he be competent to undertake. Though it is no part of his duty to design fine architecture, or to decide upon the planting and laying out of a park, he certainly needs to know more about these things.

The Conference

The Conference papers being taken as read, discussion was more general than otherwise it would have been, and amongst speakers who figured prominently may be mentioned Mr. Adams, the architect to the Local Government Board; Mr. Brodie (Liverpool), Mr. Brodie (Blackpool), Mr. Harpur (Cardiff), and Sir James Lemon.

The subjects of the papers are separable into such as directly pertain to the administration of the Act and such as pertain to the practicability of new methods of town planning generally.

It was of the greatest interest to note that there existed a very general consensus of opinion in favour of taking advantage of the Act in reference to the relaxation of the existing by-laws, and in particular as regards reduction of street works on non-traffic streets. Considerable interest centred in the practicability of the grass border.

Mr. Adams, architect to the Local Government Board, who was one of the first to be called on to the platform, remarked that it was important to remember that the Local Government Board has promised to relieve obligations as regards the issuing of notices and relaxation of regulations. Referring to the case of Birmingham's schemes, he pointed out that the issuing of notices to tenants of allotment gardens had been dispensed with. He said that the framing of lengthy regulations had been rendered necessary in order to make them capable of meeting every conceivable circumstance.

Referring to the reduction of the number of houses and cottages to the acre, he said that this did not mean so much where reduced street works were also taken into consideration. He mentioned that Ruislip and Birmingham had brought their schemes through the first stage of procedure, and that 30 to 40 authorities had schemes under consideration.

Speaking of compulsion, he said that the compulsory clauses of the Act should only be put into operation where authorities were clearly not doing their duty, and that the Act provides that in cases where the local authority is not doing its duty it is better for stimulus to come from those who elect them than from the Local Government Board.

Speaking of types of dwellings, he said that the ideal home for the Englishman was the separate house and separate garden. He thought that there was a preference for private grounds to distant open spaces.

Mr. Brodie, of Liverpool, laid great stress upon the importance of laying down in the suburbs a good system of main roads, and remarked that he considered that a wide well-planted street was preferable in many cases to a small park, and that generally our parks were too small.

Mr. Elford, of Southend stated, that in his district they were going to have tramways to outlying districts laid simply on sleepers, and not on main roads.

Mr. Brodie, of Blackpool, remarked that Blackpool was town planned several years ago. He advised officials to point out to land owners that the laying down of wide roads meant improvement to their property, and gave good diplomatic advice as to how this could be done.

Sir James Lemon, late surveyor at Southampton, mentioned that one of the most important powers in the Act was that which allows an authority to go outside its boundary.

The Papers

Some fourteen papers were written ; space will not permit of more than a reference to each and to points raised which we consider deserving of notice. But we advise all who may be further interested to apply for copies of the papers, which have been published, and are now, we understand, obtainable from the Secretary of the Institution of Municipal and County Engineers.

Mr. W. T. Lancashire, M.Inst.C.E., of Leeds, read a paper entitled "Town Planning in Congested Areas," and "Improvements and Street Widening in the City of Leeds." This paper, being devoted to the problems which particularly concern Leeds, will be dealt with at length in a future issue.

Mr. William Ranson, A.M.Inst.C.E., assistant surveyor to the Corporation of Worcester, read a paper entitled "The Prevention of Slums."

This was a somewhat drastic paper. It stressed the need for power in the by-laws to control elevations, and compensation to landowners was advocated where the number of houses per acre was reduced. He said that the Town Planning Act of 1909 was too adoptive and not sufficiently compulsory, and suggested that zones subjected to restrictions in the number of houses to be erected to the acre should also be subjected to differential ratings.

The next paper, read by Mr. Bertram Hartfree, P.A.S.L., was entitled "Planning Working-class Dwellings and Blocks." A very straightforward presentment of the attitude of the engineer towards architecture. We quote one passage : "The most important point in design is the planning to obtain good light and aspect to the living rooms. The elevation is of secondary importance." He goes on to advocate rounded angles, not only to ceilings and skirting, but also to the interior angles of rooms. Splayed projecting architraves, skirtings, &c., and other sanitary fads calculated to imbue the unfortunate tenant with the idea that he is living in a hospital or jail.

Mr. W. H. Wainwright, from the Boro' Engineer's office at Edinburgh, read a paper putting forth suggestions of value on "The Municipal Engineer and Town Planning." He advocated a system of coupling up tram routes and so making circuits, and showed the advantages to be obtained by so doing.

The paper by Mr. J. H. Brierly, borough engineer, Richmond, was

entitled "Undeveloped and Partially Developed Areas." It was a paper devoted almost entirely to the exposition of the Town Planning Act.

Mr. T. Wallis Gordon, assistant engineer, Nottingham, read a very well thought out paper entitled "Town Planning as applied to Suburban Areas." The paper was a good exposition of all the difficulties to be overcome by the practical engineer in endeavouring to idealise his town. He foreshadowed the prospect of the speculative builder fleeing from the restricted town planning area to other sites where freedom reigned supreme, but he neglected to point out that the local authority can still pursue him even here. He remarked upon the greater expenditure necessary in laying lengths of electric cable, gas, and water mains in restricted building areas over what is necessary per house in areas densely developed under the ordinary by-laws; and also upon the greater expense of collecting dust in less densely populated areas.

These new conditions consequent on a better kind of development will no doubt prevail, but are not matters of vital importance. It is also true, as he suggests, that quite good terraces and interesting streets could be built at the present time under the existing by-laws; but the point is that they are not.

The paper by Mr. Arthur Race, borough engineer, Barrow-in-Furness, was very largely an expression of the difficulties of town planning.

Mr. Louis Carr described what was being done by his Council at Ruislip under the able leadership of Mr. Abbot, the Town Clerk, and Mr. Elgood, the Chairman of Committee, with the assistance of Mr. Sutar, architect. This paper naturally created special interest, Mr. Carr having just emerged from the field of actual practice.

Mr. Taylor Allen, surveyor to the Urban District Council at Portslade, read a paper on "Improvements in Town and Street Planning from an *Æsthetic Standpoint*." Mr. Allen is to be congratulated on his boldness in venturing upon a plane evidently regarded as dangerous by most of the members of his profession.

Whilst we thoroughly sympathise with Mr. Allen in his appreciation of the importance of this aspect of town planning, we cannot say that we entirely agree with his somewhat ingenuous methods. Speaking of lamp standards he says, "The public eye becomes dissatisfied and wearied with the constant reproduction of the same forms and ornaments," and he would have novel designs which are to bear witness to the attractive and tasteful hand of the painter. We would recommend Mr. Allen to think twice before introducing such novelties, and to remember that standardisation and continuity are qualities of the greatest importance to be attained if a monumental or even sedate bearing is to be imparted

to a town, and that many of our despised lamp standards are to those who know, quite unsurpassable in beauty of outline and finish at the present day.

The paper of Mr. C. F. Wike, M.Inst.C.E., of Sheffield, and entitled "The City of Sheffield Housing and Town Planning," outlined procedure at Sheffield and will be dealt with in reference to the schemes which Sheffield has under preparation in a future number of the *Review*.

"Some Thoughts on Town Planning," by Mr. C. F. Jenkin, M.Inst.C.E., surveyor to Urban District Council, Finchley, was one of the best submitted. Mr. Jenkin's introductory remarks on the growth of towns and cities showed considerable breadth of imagination. His criticism of the Act generally brought out very clearly many of its weakest points. His remarks on the limitation of the number of houses per acre reveal some rather surprising statistics and important facts. He compared the compensation clause with similar clauses in Switzerland and France, and quoted examples of the working of such clauses in these countries. In connection with the clause referring to the suspension of the by-laws, he showed what was allowed at Hampstead and quoted from the Hampstead Garden Suburb Act.

Speaking of the Act generally, he quoted at length references to the Act by Mr. Burns, which it is useful to keep in mind. Altogether this was undoubtedly by far the best paper submitted, the peroration headed "The Act in Operation" being quite as good and as broadly cast as the introduction.

The paper by Mr. H. Shillington, M.A., surveyor, rather suggested that the author is too bound up in existing convention.

Mr. Wilfrid Hoskin, P.A.S.I., assistant engineer, Hendon, read a paper entitled "The Housing, Town Planning, &c., Act, 1909, as applied to Rural Districts." His remarks about the advisability of consulting the 6in. map before proceeding to plot main roads were undoubtedly good. He also made a point in reference to the widening of existing highways, but we feel that he is entirely mistaken in assuming that different councils each interested in one area may work independently. This is certainly not the view of the Local Government Board.

The paper on "The Legal Aspect of Town Planning," by Mr. R. A. Reay Nadin, was interesting, as having been written by a town clerk. He directs attention to the difficulties of restriction under the Act where leaseholders are bound under covenant to fulfil fixed obligations. He shows the advantages to owners and occupiers of high-class residential areas of being included in a scheme, and pointed out in connection with property developed under such a system, as in the case of Eastbourne, that harmonious treatments are often to be obtained on a big scale only

in this way. We might direct his attention in this connection to the outstanding examples of London's squares, which were all developed by this means.

Mr. Sydney H. Morgan, A.M.Inst.C.E., Prestwich, read a paper on "Notes on Widths and Construction of Roads in a District bordering an Industrial Town."

This paper, with its cast-iron facts about set paving, tarred macadam, concrete flags, &c., gives a picture more vivid than the description of any novelist of the awful conditions of an industrial town. An introductory quotation reads: "Idealists may dream and talk of the perfect city with its shady, spacious avenues and its playgrounds, but we engineers are face to face with things as they are." All this and the pessimistic remarks of the author as to the possibilities of introducing trees and grass makes very depressing reading, and would point out to the really practical man that the thing to do is not to concentrate on such questions as whether residential roads are better or worse with set-paved channels, 12in. by 6in., stone edgings and spar or gravel footways, but whether by any conceivable means manufacturers in this district can be induced, compelled, or educated up to the advantages that would accrue if they could get rid of their smoke.

The paper by Mr. E. A. Slater, A.M.Inst.C.E., on "The Town Planning of an Industrial Suburb," was a treatise on a scheme for municipal cottages to be erected at Colchester.

Of other papers submitted on subjects merely incidental to town planning, that by Mr. H. E. Capp, Corporation gas engineer, West Bromwich, is perhaps the best practical treatise yet written on the comparative advantages of gas and electric lighting. It went very fully into many new treatments of these two illuminants.

S. D. ADSHEAD.

and Paris are the capitals of European nations. Whether America gains or loses by having a separate city as a centre of government, New York itself is all the poorer for being deprived of those advantages which London gains from having the City of Westminster in its midst. Had Americans deemed it wise to create the city which has become the Washington of to-day within the limits of Greater New York, one can hardly realise how great the American capital would have become. The presence of the Capitol and the White House in such a situation, the closer combination of wealth with political power, would have acted as a magnet to scholars and thinkers, to men of art and science, all over the American continent. What New York has lost, Washington on the one side and the University centres of the New England states on the other must together continue to enjoy. It is not merely a loss of population—it is a loss of the prestige, the refinement, the culture, the social influences that gather round a seat of Parliament, and permeate the commercial life that comes under its influence. When the city plan of New York comes to be considered, its architects and engineers will have to recognise these limitations in regard to architectural and engineering possibilities.

They must also recognise that the economic and social problems of the business City of New York are fundamentally different from capital cities like London. At the same time neither city is primarily a manufacturing city like Birmingham or Philadelphia. New York is a sort of combination of Liverpool, Manchester, and the City of London, and if we could imagine these three put together, doubled in population, and occupying a water frontage of 444 miles and an area of 209,218 acres, we would begin to get some idea of its character and importance. As a business city it is self-contained; no Federal Government will erect beautiful Parliament buildings in its squares and streets, dignify it and solve its social problems at the national expense. Its architecture must be beautified by its private citizens, or out of the city exchequer. No Royal procession way is required to lead up to the Palace of the King or of the President; no Royal presence is there to help to create a Mall, or an Avenue des Champs-Élysées. Such are some of the limitations of New York in regard to the grander aspects of City Planning.

The wonder is that in spite of these and other limitations its architecture and its planning is as good as it is. Dr. Shadwell, in writing of New York, says that the leading notes of its street architecture are anarchy, shabbiness, personal ostentation, and public indifference. Those of London he describes as dingy meanness, personal reserve, and public aspiration imperfectly fulfilled; and of Berlin, monotonous order, suppression of individuality, public grandiosity and bad taste. It is an

excellent description, proving from the pen of a layman how strongly the national characteristics of the three nations are embodied in the architecture of their streets. But Englishmen may well ask if there is not more excuse for the bad qualities ascribed to "mushroom" New York than there is for those which, in spite of its age and opportunities, too truly represent some of the main features of London's architecture.

Effect of Cosmopolitan Character of Population

Another difficulty which New York has to contend with, in common with most cities in America, is the cosmopolitan character of its population. More than 35 per cent. of its population are foreigners. In regard to intelligence its citizens must suffer in the aggregate from the inpouring of the lame and halt from other nations, for it is those who fail rather than those who succeed in European countries who drift to the west. But from the point of view of physique the immigration statistics show that the process is strengthening to the population, and they help to show us why New York death rate is comparatively low in spite of the overcrowded condition of the city. Between 1904-8 1,600,000 immigrants settled in New York. Of these twice as many males as females came, and no less than four-fifths of the total were between the ages of 14 and 44. Thus out of 1,600,000 some 1 $\frac{1}{4}$ millions were healthy young men and women. This army must not only add to the strength of New York and favourably affect its vital statistics, but it depletes the strength of the peoples from which they come and adversely affects their statistics. The figures included 167,695 Britons, among whom were 89,437 males and 44,720 females under 44 years of age.

These incoming crowds affect the housing conditions by creating a demand for the cheapest possible dwellings. The immigrant who is typical of the majority is accustomed to miserable, if less crowded, home conditions where he comes from. With regard to the immigrant who has known the joys of healthy conditions in his native country, when he is away from his friends and relations he has less self-respect in regard to the position and character of his home. The first instinct of the immigrant is to save. He is willing to suffer the hardships of a miserable home in order that he may either strengthen his position in his new career, or secure the means to enable him to return to his own country by accumulating some savings. To some extent this explains the wild race for gain in cities like New York, and this in its turn reacts in making men thrifty in money matters but spendthrifts in health, in comfort, and in things that contribute to their real happiness and the beauty of their surroundings.

But apart from the fact of this incoming flow of population, there is

the still more telling fact on the social conditions of New York that it is constantly on the move. To many, New York is not a resting place but a place of call en route for the Western States. Many of its social problems arise out of the fact that it has to provide temporary shelter for the passing emigrant who, leaving his home in Europe—often the single room of the peasant-dwelling in Roumania or Turkey—with little money in his pocket, goes out to America to save money, and to suffer any endurable form of misery in the process. So he is prepared to “rough it” in the slums of New York, as well as in the prairie backwoods of Texas. He does not want a home, only the cheapest and coarsest form of shelter. Even if he ultimately settles down in New York, it is because other ties than those of happy home life bind him to it.

Physical and Geographical Character of the Site of New York

What I have hitherto referred to are fundamental and unalterable features which have to be reckoned with in any proposals for the improvement of New York, and have their bearing on the future development and planning of the whole city. Another feature which is more commonly known and is not less important is the physical character of the site. One constantly hears the argument that the overcrowding of Manhattan is due to the difficulty of spreading the city across the Hudson and East Rivers, which form its chief and most extensive boundaries, and vary from about half a mile to over a mile in width. But I think few realise that on the northern end of Manhattan the division between it and the great mainland area of the Bronx, which could be extended indefinitely into the West Chester County area, is only the comparatively narrow Harlem River, which in places is less than 300 yards wide. The Hudson River is too wide to enable proper overhead facilities to be provided, and Jersey will probably remain a city apart, but the physical difficulties of connecting Manhattan and Long Island are gradually being overcome by the erection of bridges for rail and road traffic. These now include the Brooklyn, Manhattan, Williamsburg, and Blackwell's Island bridges, varying from $1\frac{1}{8}$ miles to 2 miles in length. Across the narrower Harlem River there appears to be ten connections by road alone between Manhattan and the mainland. There is really ample space and facilities for extension, and it is gradually being realised that development horizontally is more economical and produces better facilities for the conduct of business, as well as healthier conditions of life for the people, than the vertical growth on a restricted area, which has been and still is the predominant tendency of New York development, leading, as it does, to unparalleled overcrowding and congestion. The high price of land for building in the suburbs is chiefly responsible for this tendency to cramp



OVER THE EAST RIVER
Lower New York and Brooklyn Bridge



OVER THE HARLEM RIVER
Washington Bridge connecting Manhattan with the Bronx, 2,400 feet long



OVER THE EAST RIVER
Manhattan Bridge: 2 miles long, 8 railway tracks, roadways and footpaths

the buildings on little space—as I shall endeavour to show. It is probable that if a law were passed to impose restrictive conditions on the development of unbuilt areas which did not deal with this root question of the value of the land, it would only result in intensifying the congestion, even if it made the development more orderly and less haphazard. A few statistics will help us to understand the problem better.

Area and Population, and probable future growth

The total area of New York is 327 square miles, or 209,218 acres, on which there is already a population of 4,766,883. If we average this population over the whole area and calculate that $4\frac{1}{2}$ persons occupy each house, we arrive at the figure of 22·7 persons per acre, occupying rather over five houses. Allowing for a considerable area to continue to be occupied by warehouses, factories, and tenements, it is apparent that the population of New York could be quadrupled on its own area with half of the people living in separate family houses, as in the suburbs of London and in Philadelphia. In Manhattan alone there are 2,331,542 persons occupying 22 square miles, representing an average of 165 persons to the acre. If the whole of the rest of the area were developed according to this average density, it would accommodate about $34\frac{1}{2}$ millions of people, no allowance being made for the fact that the proportion of area in Manhattan occupied by non-residential buildings is greater than it is likely to become on any other part. Even if the present rate and method of growth continues, it will take over 50 years for this to be accomplished, but more likely it will take double that period, for the time must come long before another half century is passed when, on the one hand, the heavy costs of maintaining congested areas of increased size, the increasing difficulties of central transportation, the folly of allowing the health of the people to suffer by overcrowding, and, on the other hand, the continued improvement of means of communication with the outer suburbs, the increasing tendency of the people to spread into more open country districts, and the increase in the area of land adaptable and convenient for building, will result in Greater New York occupying a much larger area when its population is seven times its present number. No allowance for such probable changes is being made by those who at present hold up land worth £25 to £50 an acre for agricultural purposes at such high rates for building purposes that it is impossible, even in the outer suburbs, to erect other than tenement dwellings for the labouring classes.

Effects of the High Cost of Land

In the Report of the Board of Trade on Housing Conditions in New York, the statement is made that in the suburban parts of New York

"there is little doubt that a demand for small self-contained houses at a moderate rental exists, but under present conditions it is practically ineffective." An estate agent in Bronx stated to the investigator of the Board that "if single-family houses for wage-earners existed I could rent a hundred a day. But it is a demand that cannot be met even at a rental of 30 or 35 dollars a month" (28s. 10d. to 33s. 8d. per week).

Allowance has to be made for the greater cost of building in New York; but against this has to be put the higher wages of the people, which would enable them to pay double the rents they pay in England. But the above estimated rents are twice what they should be after due allowance is made for the cost of building, and this excess is mostly due to the high cost of land. This economic question has, of course, a most important bearing on the question of City Planning. If the single-family house is impossible, then the method of planning must be adapted to the high tenement. I have already argued that the conditions of Central New York are such that one must face the fact that "skyscrapers" will continue to be erected in the business areas, and the problem is not how to prevent their erection, but how to control and limit them within reasonable bounds. But in regard to the dwellings of the people yet to be erected on unbuilt-upon areas, there seems no reason—apart from the artificially inflated land values—why single-family dwellings should not be the rule rather than the exception; and legislation should be introduced to enable and encourage such houses to be provided for that great part of the population that desires them. The practical difficulties should be overcome, because the advantages would be so enormous. It is difficult to understand why these difficulties need be so much greater in New York suburbs than in London suburbs, as there is ample available land awaiting development.

London is better served by means of transit into its suburbs, and this has great influence in encouraging the tendency to "spread the people." The absence of means of transit in New York is not due to want of enterprise—of which Americans have more than the average—it is rather due to the constraint which is put on railway enterprise by the comparatively higher land values. For instance, a railway company has not only to pay excessive prices for the land required for its railway tracks, it has to face the economic fact that the lowering of its rates benefits the real estate owner rather than the public, and therefore it assists in the operation of keeping the area used for building in narrower limits by keeping the fares high. If a new district is opened up, and the company charges low rates to encourage migration, the owner of the real estate obtains correspondingly higher prices from his land. By charging these high prices he also retards development, and this again reacts

on the railway company by reducing the traffic. Neither the company nor the real estate owner care to yield to the pressure, and thus the policy of greed reduces the profits of both, and restricts the area of development to narrower limits.

Extent of Undeveloped Land

The question arises as to whether there is ample scope for expansion on less congested lines, even if the means of encouraging it were provided. On that point there is ample affirmative proof to be had. Against the average of 165 persons or 36 houses to the acre in Manhattan, there are only 33 persons or $7\frac{1}{2}$ houses to the acre in Brooklyn, with an area of 49,920 acres. If we allow that the density of the developed portions of Brooklyn is only twice the average density of the whole, *i.e.*, 66 persons and about 15 houses to the developed acre, then there would appear to be about 25,000 acres still awaiting development.

In the boroughs of Bronx, Queens, and Richmond, having the enormous area of 227 square miles, there are only 5.5 persons, representing about 1.5 houses per acre. If we again assume that there are only 15 houses on the developed areas of these boroughs, we find that out of a total of 145,280 acres over 130,000 acres, or nearly $1\frac{3}{4}$ times the area of the administrative county of London, is still awaiting development. In face of these figures it cannot be argued that the absence of single-family houses in New York is due to any deficiency in available building land.

With regard to the price of land, it is difficult to understand what causes operate so successfully in keeping up the high cost of real estate for building and in preventing expansion. There is the bald fact that land for agricultural purposes* is worth about the same, if not less, than in suburban London, but that sites for residences can only be obtained at four or five times the cost of similar sites in the London area. It is not my present purpose to enter into the question of the different methods of taxation and their effects on the value of land, but whatever the causes are it is apparent that New York—like Berlin, Edinburgh, and other cities in which tenement house building prevails—have to face a serious economic problem, which is unknown in anything like the same degree in such cities as London and Philadelphia, where the single-family house is in vogue.

Housing Conditions

Up to this point I have tried to examine some of the problems which are peculiar to New York in regard to the quality, character, and move-

* Mr. H. B. Fullerton, director of the Long Island Railroads Agricultural Development, says that farm land is worth \$100 per acre, whether it is 60 miles from a post-office or railroad station or close to a market.

ment of its immigrants, the physical features of the site, the geographical distribution of the population, and the effect of all these and other causes on the economic conditions which affect the city's growth and make the amelioration of its social conditions so difficult. Before proceeding to consider the steps which should be taken to improve these social conditions, by means of City Planning and otherwise, I think it is worth while to devote some space to setting out the extent of the evils which have to be dealt with, especially as regards housing, which is so intimately connected with the question of City Planning.

Americans are not given to acknowledging their weaknesses, nor to admit that in any respect they are behind the times. Yet the most experienced worker in connection with Housing Reform in America, Mr. Lawrence Veiller, makes the following remarkable admission regarding housing conditions in New York :—

“The conditions in New York are without parallel in the civilised world. In no city of Europe—not in Naples, nor in Rome, neither in London nor in Paris, neither Berlin, Vienna, nor Buda Pesth, nor in Constantinople, nor in St. Petersburg ; not in ancient Edinburgh nor modern Glasgow ; not in heathen Canton nor Bombay—are to be found such conditions as prevail in modern, enlightened, twentieth century Christian New York.

“In no other city is the mass of the working population housed as it is in New York—in tall tenement houses, extending up into the air 50 or 60 feet, and stretching for miles in every direction as far as the eye can reach. In no other city are there the same appalling conditions with regard to light and air in the homes of the poor. In no other city is there so great congestion and overcrowding.”

This indictment is so strong, and is fraught with such evil consequences to the American people, that one hesitates to accept it, even from Mr. Veiller, without obtaining other tests of its accuracy. But let us first note Mr. Veiller's own facts in support of his statement. Here is a brief summary of some of them.

(1) In 1835 there were, comparatively speaking, no tenement dwellings in New York. When the city was the same size as Detroit and Washington the people lived in small one-story and two-story houses, as they do in the latter cities to-day.

(2) To-day the greater part of the city's population are housed in tenements ; and over two-thirds of the people live in multiple dwellings. There are 100,000 separate tenement houses, of which 10,000 have only narrow air-shafts, which cannot be penetrated by sunlight or pure air, 20,000 more of which most of the rooms are “without light or ventila-

tion." There are over 100,000 dark, unventilated rooms with no windows or borrowed light.

(3) There are 80,000 buildings, housing 3,000,000 people, so constructed as to be a standing menace to the community in the event of fire, most of them being built with wooden stairs, wooden halls, and wooden floors, and thousands built entirely of wood.

(4) Over a million people have no private baths, and no private sanitary conveniences. In 1900 there were 250,000 whose only sanitary conveniences were antiquated yard privies. Even to-day 2,000 of these privy sinks still remain, many in densely populated districts.

(5) During the last forty years only 25 groups of model tenements, equivalent to 89 houses, have been erected, providing accommodation for 17,940 persons. In the same period the speculative builder has built, approximately, 27,100 tenement houses, most of them of an objectionable type—unsanitary buildings, dark rooms, narrow airshafts, improper ventilation, inadequate plumbing, and absence of proper sanitary conveniences, insufficient privacy and great danger in case of fire. In these buildings are housed 253,510 families, or over a million and a quarter of people, *i.e.*, over a fourth of the whole population of Greater New York.

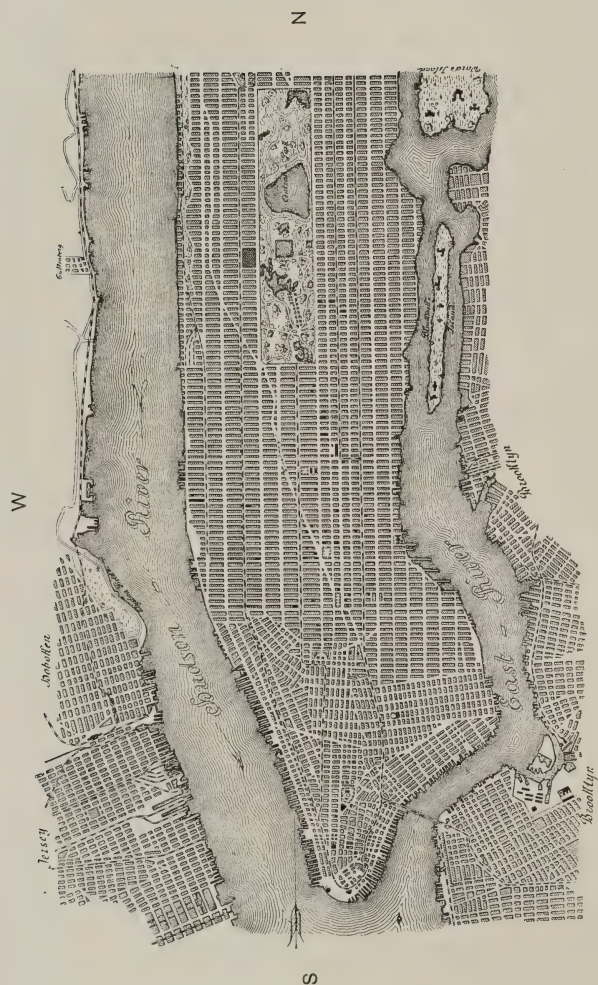
Turning from Mr. Veiller's book to the Report of the findings of the New York City Commission on Congestion of Population, the following remarkable figures are given. In 1905 a little over one-sixth of the population of New York lived south of the 14th Street, in Manhattan, at a density of 306.8 to the acre. In five years the population on this area had increased by 27,165. In 1910 about one-thirteenth of the city's population—*viz.*, about 370,000—were living at a density of 600 to the acre. The block density in the lower part of the Bronx, and in Brooklyn, had a density of from 414 to 600 per acre. In 1908 one-fourth of the blocks in Manhattan were covered solidly by buildings, or had less than 11 per cent. of the area not covered. In 1905 there were in Manhattan 122 blocks with a density of over 750 to the acre, and 30 blocks with a density of over 1,000, counting in the acreage of such blocks one-half of the area of bounding streets. In the most densely populated areas of Paris and London the maximum density per acre is 434 and 365 respectively.

These figures are also borne out by the Board of Trade Report already referred to, which also states that "next to the central fact of congestion, it is the interior planning of the great bulk of the dwellings of the people that appals." What is known as the dumb-bell type of building is probably the worst kind of dwelling ever devised for human habitation. The only means of ventilation along the sides of these block

dwellings is an air-shaft, 28 inches in width, except in the centre, where it widens out to 6 feet for a length of 16 to 18 feet at the place where the windows of the water-closets are constructed. In duplicated dwellings of this description, six storeys in height, the windows of 60 rooms and 24 water-closets would look out on a single shaft. In a Report of the Tenement House Department, the view is expressed that it is questionable whether the rooms would not be more habitable and more sanitary to have no shafts at all, and to depend on borrowed light and air from the other rooms fronting on to the street and court, as these shafts act as conveyers of noise, odours, and disease, and when fire breaks out serve as inflammable flues.

Enough has been said to endorse Mr. Veiller's contention, that the housing conditions of New York are perhaps the worst in the world. It is difficult to realise how bad they are without a personal visit to these dark and overcrowded dens which serve as homes. I visited them when on a Sunday afternoon in May I passed through East New York. I looked up streets practically filled from side to side with masses of people, whose only chance of getting fresh air was to squat on their doorsteps or stand in the street. These streets were littered with the filth of horses, decayed vegetables and fruit skins, and pieces of newspapers. Amidst it all the surprising thing was the cleanliness and apparent respectability of the people themselves. In other respects than housing accommodation they live according to a higher standard of comfort than the working class in Europe. They earn good wages and pay high rents, and it should be made impossible for them to live in such unhealthy conditions. I saw houses consisting of three dark rooms, entered from dirty passages, which were let at rents equivalent to 15s. per week. This is quite a common rent for the labourer to pay who earns from £2 to £3 per week, and the worst feature is not that it takes such a large portion of his income for house rent, but that he does not receive value for his money.

When the conditions in which the bulk of the wage-earners live are so bad, it is natural, and yet disappointing, that the steps which are being taken to improve matters seem so far short of what we have become accustomed in England to regard as the minimum requirements of house room, air space, and sanitation. The Tenement House Law of 1901 helped to improve conditions, but within very narrow limitations. Instead of 75 per cent. of other than corner sites, not more than 70 per cent. of the land can now be occupied by building. Instead of no limit to the height of buildings in narrow streets, the height was limited to $1\frac{1}{2}$ times the width of street. The minimum depth of yards was raised from 10 to 13 feet deep, and the 28 inch air shaft was abolished in favour of 6 feet courts. But it is pointed out that even under this improved law 1,300



NEW YORK: MANHATTAN ISLAND

The plan of Manhattan Island was prepared in 1807 by a commission "which failed entirely to anticipate the future growth of the city." The East and West Streets were laid out 60 feet wide with only 200 feet between each street. The North and South Avenues, although made wider, were placed from 700 to 900 feet apart. The plan was entirely rectangular in character, and the only diagonal streets provided were Canal Street from Broadway to the Hudson River, and Broadway, north of Madison Square, following the lines of original highways. Although most streets are provided East and West, the trend of traffic is chiefly North and South.

people may be housed on an acre, and only one room in four in a six-storey tenement can receive an adequate supply of sunshine. It is also still possible to cover an entire plot of land adjacent to a tenement house with a factory or warehouse of almost any height. Certain blocks in Manhattan are deprived of any through ventilation because of this. In face of these facts it is apparent that a long process of evolution will be necessary before a really effective improvement in the existing housing conditions of New York is secured.

Concentration of Factories

One more important factor in the New York conditions remains to be dealt with. It is, that half of the factories of New York are concentrated on the southern part of Manhattan, below 14th Street, where the congested districts are. "In this fact," says the Board of Trade Report, "is found the chief explanation of the congested districts for which Manhattan is notorious, for the dominant explanation why people live in these crowded areas is the industrial opportunity which living in them secures."

No doubt this theory is true in view of the absence of better transit and of the opportunity to secure cheap and healthy homes outside of Manhattan. It would cease to be true if this opportunity were provided. But when the only alternative to a tenement house in Manhattan at 15 dollars a month is a slightly more sanitary and airy tenement at 1 or 2 dollars less, in a badly lit and badly constructed street in Brooklyn or Bronx, I am not surprised that the worker prefers to live in the brighter, if more unhealthy, surroundings near his work, rather than to spend time and money in a journey to secure what on the whole may be a doubtful benefit.

But the concentration of the factories in Manhattan raises the further question as to why these remain on such expensive land, bearing the burden of heavy rates, suffering from congestion of traffic in the streets, and the many other disadvantages which are associated with a congested area. The probable explanation is the same as that which operates in preventing the migration of the worker—apart from the factory. The economic advantages of removal are not sufficiently great, because of the conscious or unconscious conspiracy of the real estate owner and the railway company to obtain these advantages to themselves. It is true that in American cities the advantage of securing the establishment of works in an undeveloped area is much appreciated, and land is often given for the purpose, both rent and rate free for a period. But this is only done to enable the authority, or the landowner, to exploit the worker—the first through increased rateable value, and the second

through the conversion of his agricultural land into building land. These opportunities are mostly obtainable in small cities, and obviously occur where the aim is to attract a factory from one city into another, and not from one part of a city area to a less congested part. If only the City of New York would realise the advantage it would be to itself, in connection with the solution of its social problems, to provide special facilities for its manufacturers to move from congested to semi-rural areas, it would use every effort to give these facilities. Another reason is no doubt the absence of co-operative effort to secure the removal of factories. The pioneering difficulties which attend any attempt on the part of one manufacturer to remove his works are well known and almost overwhelming. His labour and transport problems are in such cases often so serious as to drive him back again to the city; and there have been cases in New York itself where failure has attended such effort. The only chance for such a movement is to have it facilitated and gradually accomplished by the administrative pressure of the city, or organised on a large scale.

Scheme for a City Plan the first essential

Arising out of the facts and arguments which have been so far advanced in this article, I think it is clear that the adoption of a City Planning policy, which shall have for one of its main objects the wider distribution of its factories and population and the proper control of the consequent expansion of the city, is the most important and urgent duty of the city of New York as a means of solving its many problems. We have seen that there is ample room for expansion and that the need for it is enormously greater in the interests of public health than in any other city. We have evidence that it is almost an impossible task to raise the standard of housing and sanitation where the congestion already exists, or to effect any approach to what is satisfactory where undeveloped land has already acquired the high assessable value due to its ripeness for tenement building. A frontal attack on these conditions must mean slow progress indeed. There must also be a flank movement so as to bring into play other economic forces, such as more effective competition from the outer suburbs and cheap transit would produce. Mr. Veiller is right in saying that the housing problem in America is at root a sanitary problem; but the cautious nature of his own proposals to solve it, side by side with his recognition of the fact that a radical change is necessary, shows that he appreciates how difficult it is to make any advance at all by legislation which confines itself to the amelioration of existing conditions. To condemn insanitary houses without providing others more sanitary is only to intensify the problem. To provide these others

artificially in the shape of model tenements is a total failure. Every isolated effort to provide temporary palliatives, however good in itself, uses up effort which should be used to remove the causes of the disease. Curative work should, of course, proceed side by side with preventive work, but it should never occupy the whole attention of the reformer even where the disease has become desperate. Preventive work—such as the proper regulation of suburban development, the improvement of transit, the severe limitation of height of buildings in zones, the prevention of overcrowding of buildings on the land—is, in itself, a method of attack on slumdom which adds enormously to the value of any direct attack on the evils themselves.

A comprehensive City Planning policy would meet the case. To preserve the amenities of the outer suburbs is to make them more attractive to the resident. To provide new arterial roads properly paved at the expense of the owners, leading to these suburbs, is to make healthy competition with the railway companies possible. To construct tram or trolley lines into such suburbs in anticipation of development, and, more important than all in New York, to limit the number, height, and character of buildings to be erected on undeveloped land, is the best means of at once helping the owner by making his turnover of land more rapid, and the movement for expansion by limiting the profits which may be made out of the land. A City Planning scheme may not be the final step, but it is pre-eminently the first one to take. It will not solve every problem, but in undeveloped areas it should precede any step to solve any problem. But it should be a scheme which will deal with social and economic aspects of the question as well as the architectural and engineering.

What is being done, and what is left undone

New York has already done splendid work in investigating the problems of congestion and its causes. It has committees at work, trying, by scientific methods, to keep the evils of congestion within proper limits, and to secure healthier conditions in overcrowded areas. It has its Art Commission, dealing with architectural and other æsthetic questions. It has also its Improvement Commission, which is devoting a large part of its attention to the work of securing additional breathing spaces for the city. Before the park systems of Boston and Kansas City were begun, the City had secured three large new parks in Bronx, two of which were connected by a Parkway 600ft. in width and over a mile in length. From one of the latter another Parkway 400ft. wide and $2\frac{1}{4}$ miles in length leads to the third park, 1,756 acres in extent. There are proposals to link up these parks in the Bronx with the Central

Park and the heart of the City, but this will cost an almost prohibitive sum of money because it has not been thought of in time. To indicate one advantage which would accrue from a City Planning policy being adopted in advance of development, three small parks in Manhattan comprising an area of ten acres were purchased within the last 20 years at a cost of about $5\frac{1}{4}$ millions of dollars, while the Great Central Park of 840 acres purchased more in advance, about 50 years ago, cost less than this sum. The extension of the fine Riverside Drive and the provision of park systems in Brooklyn and Richmond are among the proposals of the Improvement Commission. The City has a total park area of 8,000 acres, or 1 acre to 562 persons, as against 15,894 acres, or 1 acre to 472 persons, in the area of the Administrative County of London. But the parks of London are more centrally situated and are not accompanied by the same congestion of population.

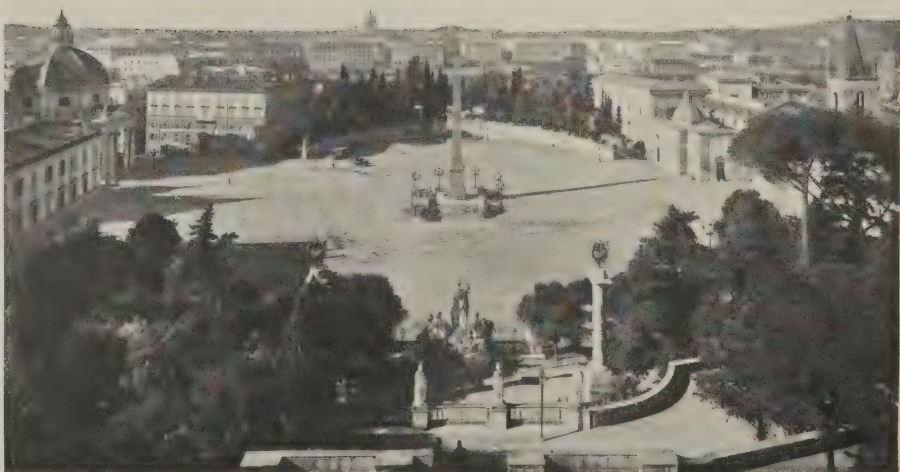
New York has the American love of display and of bold enterprises. It does not lack belief in itself or in the chances of its future growth. What it lacks is cohesion of effort on broad, comprehensive lines, and recognition of the simple commonplace that prevention is not only better than cure where the disease has not begun its ravages, but an indirect method of helping to remove the disease even where it has become established. It lacks the power of concentrating on the problem of New York as a whole, and of dealing with its economic, its social, its architectural, its engineering, its transportation, its housing, its industrial, and other problems, by means of a definite and far-reaching scheme of City Planning. Each of these aspects has something in itself which cannot be covered by any general scheme, but in so far as they have something in common, in so far as the one reacts upon the other, it is necessary that they should be considered as a whole, and that one scheme should embrace them all as far as practicable.

In the words of the Chief Engineer of the Board of Estimate and Apportionment of New York, Mr. Nelson P. Lewis, "the creation of such a plan needs a strong hand and a central authority which will be, in a large degree, regardless of unimportant local interests."

THOMAS ADAMS.



ROME: OBELISK AND PIAZZA IN FRONT OF ST. PETER'S



ROME: OBELISK AND PIAZZA DEL POPOLO

OBELISKS

THE DECORATION AND FURNISHING OF THE CITY

No. 3.—Obelisks

The value of the horizontal line in architecture is the value of restfulness and strength. When stratified into ponderous friezes supported on massive columns, restfulness and strength assume proportions which in their capacity for endurance are awe-inspiring to behold. Such was the architecture of the Egyptians. But the effect thus attained was an effect that was self-contained, it was lifeless and part of the measureless plane, there was needed a contrast—a note of recognition of the eternal mass. The Obelisk pointing heavenwards was the human sign, it was the finest conceivable foil. When originally set up by the Egyptians it was no doubt worshipped as an emblem of the sun; but with its literal purpose we are not here concerned. Whatever the literal use may have been there is no doubt but that as a feature in the composition of Egyptian architecture it played a most important part. It played the part of the lofty spire in the slumbering village of yesterday; the part of the minaret of the East; the part of the column in the forum of Rome. But it did more than this; as a monolith of titanic proportions it was an emblem of the greatness, the industry, the determination and the achievement of a great combination of men.

In all there have survived unto to-day some 42 known Egyptian Obelisks. Of these 12 have been transported to Rome, five to England, of which one now stands on the embankment at London, one at Alnwick, one at Longton Hall, and two in the British Museum. One has been transported to New York, one to Paris, and several are at Constantinople. All are of the hardest granite, ornamented with hieroglyphic inscriptions on their faces, and have pyramidion apexes which were originally covered with polished metal reflecting the rays of the sun. But few of the Egyptian Obelisks now stand on their original sites. The Egyptians themselves removed them at different times. But the Romans who appropriated the treasures of the world were the first people to transport them across the sea. The largest of those at present standing in Rome is that in the Piazza of St. Peter. It was originally brought from Heliopolis by the Emperor Caligula in the first century and was by him set up in the Circus of Caligula, afterwards named the Circus of Nero, where it remained undisturbed for fifteen centuries. It was again removed to its present site in the year 1585; Dominicus Fontana was the architect who undertook its removal.

Another Obelisk in the Piazza del Popolo at Rome bears an inscription which sets forth that King Seli filled Heliopolis with Obelisks. Augustus erected one in the Campus Marminis, where it was made as an gnomon, a dial being formed on the white marble pavement with brass lines.

The Obelisk in London and that at New York are a pair. They were originally erected at Heliopolis by Thotmes III., B.C. 1591-1565 (Lepsius). Some say that they were the second pair erected in front of the temple there, the first pair having been removed to Constantinople. Before the removal of the London and New York Obelisks to their present sites they stood for many centuries at Alexandria. The London Obelisk weighed 186 tons 7 cwts., its height is 68 feet from the base, and it was brought to its present site in the year 1878. Originally it was 186 feet in height.

The Paris Obelisk is the match of one now standing at Luxor.

The Obelisk as a stolen treasure has in every case been set up singly and as a single object has been used to enhance an architectural composition in a different way and for a different purpose from that which it was originally intended.

In London and New York it is made merely as a monument of Egyptian antiquity, but as set up in Rome and Paris it has been made the hub of a great Place. The Obelisk in the Piazza of St. Peter, at Rome, emphasizes the access of an approach without obstructing the vista, and æsthetically answers a purpose which no other form could so well accomplish. That in Paris, set up in the centre of the Place de la Concord and on the axis of the great vista from the Louvre to the Arc de Triomph, answers the same purpose in a similar way.

But besides these great monoliths of syentie granite which have been stolen from Egypt many modern examples have been erected since, and it is with the form and proportion and use of these that the Town Planner and Town Furnisher of to-day is most nearly concerned. Strictly speaking the Obelisk should be a monolith, but beyond quite small monuments usually to be found in cemeteries, none of a single stone have been erected since the time of the Egyptians. Modern nations have not been satisfied to incur the enormous expense necessary to quarry stones of any size, even where funds have been sufficient. Either as at Washington, where the great Obelisk is 550 feet in height, mere dimension has been held of greater account than the really greater and more real value of obtaining a result in a single stone, or else some other form of greater interest has been used in place of simplicity of idea.

When erected in small stones it is an undoubted mistake to proportion it on the same lines as the monolith stone. It should be shorter and broader in mass. That erected in the Phoenix Park, Dublin, and known as the Wellington Obelisk, is perhaps the best of this kind. See Plate 86.



ROME: OBELISK IN FRONT OF THE PANTHEON

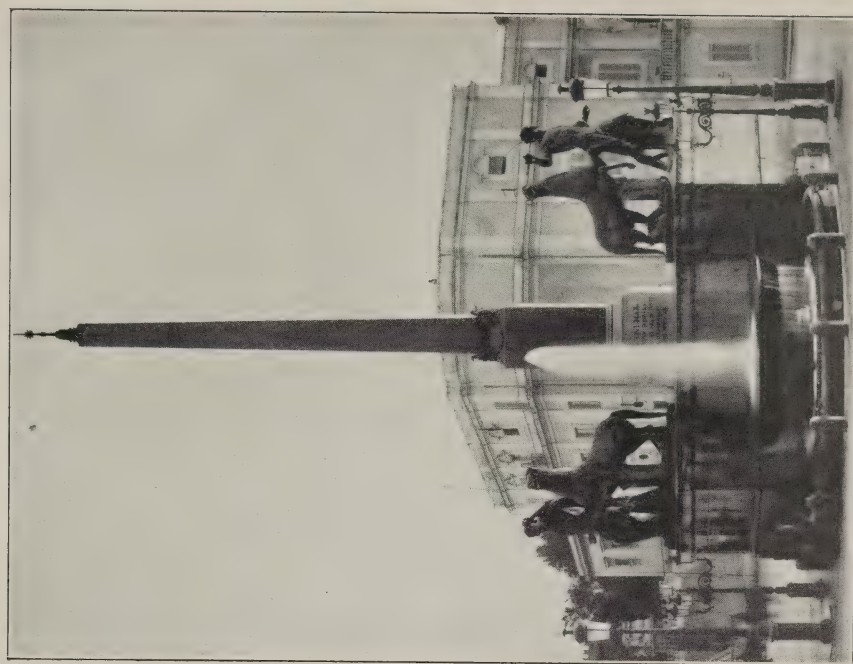


ROME: PIAZZA OF S. GIOVANNI IN LATERANO AND OBELISK.

OBELISKS



LONDON: CLEOPATRA'S NEEDLE ON THE EMBANKMENT.



ROME: PIAZZA DEL QUIRINALE AND OBELISK



PARIS: OBELISK DE LUXOR IN THE PLACE DE LA CONCORDE



ROME: OBELISK IN FRONT OF STA. MARIA MAGGIORE

OBELISKS



DUBLIN: WELLINGTON OBELISK IN PHOENIX PARK

To us moderns the Obelisk, by virtue of its form and associations, will ever stand as the most appropriate of all monuments to typify perpetuity and endurance. It was most appropriately used at Washington to commemorate the greatest of national events. As a great monument its use should be reserved for such occasions, and it should be set up only as marking the commencement of a new era in national events.

There are many Obelisks existing in Great Britain, built up of separate stones. Besides that at Dublin, perhaps the best known are one erected in Ireland to commemorate the battle of the Boyne, one in the Isle of Wight, and one on the How, at Plymouth. Numerous small stones of Obelisk form exist in the market places of our villages, as at Buxton, usually set up on a stepped base. Such are often ornamented with bands, are occasionally poised on four balls, have base mouldings, and other decadent features. Such offshoots from the original titanic monoliths may quite appropriately be used incidentally and in an unimportant way ; but the Obelisk used seriously should be absolutely simple in form. Finally, one word on the bronze furnishings which may be applied to the apex and the base. The New York Obelisk is unadorned, but that in London on the Embankment has been splendidly set in a bronze winged cup, and those in Rome and Paris have been similarly treated. That in the Piazza of St. Peter is surmounted by a cross. Others at Rome have been capped with effigies of the sun, and with Papal and Royal Arms.

S. D. ADSHEAD.

TOWN PLANNING FOR MIDDLESBROUGH

It may be of interest to the readers of this Review to hear some particulars of the comprehensive Town Planning Scheme for Middlesbrough which I lately submitted to the Streets, Plans, and Sanitary Committees of the Corporation.

A year or so ago I suggested that a Town Planning Scheme should be prepared for the area of land bounded on the South by the Asylum Farm; West by Marton Road; East by the North-Eastern Railway; North by Longlands Road; having regard that building operations were going on at the higher part of Grove Hill, particularly on the area north of the borough boundary from the Asylum grounds to Longlands Road.

Ten cottages (one of which is a small shop) had been erected facing to Marton Road; and behind these four very small houses were to be erected. These ten cottages, including front gardens and back yards, occupy an area of 1,630 square yards, or one-third of an acre—an average of only 163 square yards each. The yard space for each cottage is only 347 square feet, or 39 square yards.

The area in question (which is about 120 acres), being one of the best in Middlesbrough, it appeared to me that having regard to the powers conferred on the Corporation by the Town Planning Act, 1909, they ought to have some say as to how this portion of Middlesbrough should be laid out.

My recommendations were unanimously adopted by the various committees and confirmed by the Town Council. Mr. Councillor Trevelyan Thomson (who is taking an active interest in Town Planning and future development of Middlesbrough), however, proposed in the first instance that the limits of the scheme be extended so as to include the whole of the land from the west side of Marton Road up to the Albert Park, and later further proposed that the limits be again extended so as to include the whole of the unbuilt-on land within the borough.

The growth of towns, like the growth of everything else, is always along the lines of least resistance. The forces of resistance may be natural, such as that presented by streams or great irregularity of ground, or they may be those more artificial hindrances that come from landlord rights or fiscal barriers. Middlesbrough, lying on a plain, has few natural obstacles, west, east, and south, to contend against. The toll-bars, and, to a lesser extent, railway lines, have prevented progress in certain directions, and have driven builders and house speculators mostly into the south-western corner of the borough. There expansion, favoured



PLAN SHOWING AREA ENCLOSED BY CITY BOUNDARY

Ironmasters' District in the North

Undeveloped Land (shaded) in the South

MIDDLESBROUGH

by the tramway, has been rapid during the last ten years. The means of communication between this south-western off-shoot and the centre of the town are fairly satisfactory, but connection between it and the north-western and the eastern districts are almost non-existent. From the top of Grove Hill to the toll-bar and onward to the Bungalow there are virtually no roads connecting this part with the chief artery of the town, Linthorpe Road. Between the southern portions of Linthorpe and Newport Road the means of communication are almost equally defective.

The chief purpose of my scheme is to remove these defects and to bind all the ends of the borough closely together by wide and pleasant main radial and ring roads and thoroughfares. The chief roads lie on the townward side of the Marton Road toll-bar.

No less important than the practical suggestions is the intention of the scheme that the new Middlesbrough, be it Greater or only Great, shall be beautiful, that it shall at least not reproduce many of the ugly features of the old. In all building expansion this ideal should be kept in view.

I have made also suggestions regarding character of houses, forms and dimensions of roads and streets, side communications, and the abolition of back passages, which I think should prove of value.

The scheme raises the question of the absorption of North Ormesby, with the probability of Cargo Fleet and South Bank being drawn in afterwards. The whole area comprised within the Parliamentary boundaries would be vastly improved, commercially and residentially, if the outlying parts were bound more closely together with the centre of the town. The communities to the east are probably not very anxious to be drawn into the rating nets of the Middlesbrough Town Council. The high rates of the borough are not an attraction to anybody, but there is another side which must be looked at. All the outlying parts have shared, and continue to share, in many of the works that have added to the debt and the rates of Middlesbrough. Therefore, if the existing toll-bars could be removed the question of the creation of a Greater Middlesbrough would have to be boldly considered. With some tact and a little give-and-take, objections might soon be overcome.

The scheme, which is given fully below, includes the construction of wide radial artery roads, and the laying out of 810 acres (or $1\frac{1}{4}$ square miles) of land in seven different areas.

Notable features of the scheme are the limitation of the number of houses to the acre to eight, and less for better class houses, and not to exceed 18 or 20 for other dwelling-houses, including the area occupied by the road.

Back streets will be no longer necessary, as the whole of the sewage will be water-borne ; and a minimum depth of building sites of 100 feet is recommended.

Residential roads may be laid out in the form of crescents and rectangles, and the laying-out of plantations and public walks is also foreshadowed.

The Engineer's Report

The following is a copy of my report :—

I beg to report that I have completed the draft of a suggestive Town Planning scheme for the area of the borough, southward of Breckon Hill Road, Park Road South, St. Barnabas' Road, and Acklam Road, and now submit plans embodying suggestions for Town Planning and prospective laying out of same and show thereon roads and site planning together with the formation of main lines of roads and highways and also interlacing roads for residential and other districts.

Improvements to existing main roads under the provisions of the Development and Road Improvement Funds Act, 1909 (Road Board Policy) for road improvement is also included in the scheme. The proposals for improvement of the existing main or artery roads have already been under consideration of the Streets Committee (November, 1910), and were generally approved. Application with respect thereto has been made to the Road Board.

Road Improvements.

Dealing first with the road improvements they are as follows : Acklam Main Road and West Lane (radial artery main road).

Direct access from districts outside the borough boundary near Acklam to the Newport district of the borough. This improvement proposes acquisition of the necessary land for widening to a minimum width of 60 feet, easing the bends or curves at various places, straightening at the corner near the brickworks and easing of the existing steep gradient.

At the curves on the road the width is increased to 70 feet for easy access and sight round such curves. The total length from Newport Road to the borough boundary is $1\frac{1}{4}$ miles. With regard to this road, it is not suggested that expenditure should be incurred at once except that perhaps the amount required for the acquisition of land for widening. The land could no doubt be obtained at the present time at agricultural value, and if so obtained the necessary fencing and ditching could be carried out, and in this wise the gradual building up of a good and wide main trunk road could be undertaken.

Marton Main Road (radial artery main road) : This road is a " toll-

bar private road," maintainable by the Owners of the Middlesbrough Estate Ltd., and toll is levied for the user thereof. At present it is very narrow (varying from only 23 feet to at most 40 feet), and should be widened. With regard to the abolition of the toll-bar, at the moment I do not make any proposal with respect thereto. Marton Road is one of the two main road outlets south of Middlesbrough.

This road from the bungalow, *i.e.*, from where it joins the Redcar and Stockton main road for the whole length up to Clairville Road, should be widened to 60 feet; the land required for such widening could no doubt at the present time be obtained at agricultural value.

The length within the borough is $\frac{2}{3}$ rds of a mile and outside 1 mile, total length $1\frac{1}{3}$ miles. I do not suggest that the road construction should be gone on with at present, but arrangements could no doubt be made for setting back fences and the formation of a road in the manner as now outlined.

Town Planning.

These road improvements are part of the Town Planning scheme, the general proposals of which I now beg to describe. The area to be laid out (810 acres or $1\frac{1}{4}$ square miles) is divided into districts as follows:—

Longlands.—Portion immediately south of Breckon Hill Road.

Belle Vue.—The area north of the boundary of the Asylum grounds and farm.

Grove Hill.—Area westward of Marton Road immediately south of the "Cinder Path."

Park Side.—Area immediately south of Park Road South.

North Acklam.—The area south-eastward of the Acklam brickworks (Acklam Road Corner).

South Acklam.—The area intervening between Cambridge Road and Green Lane.

From Acklam Road to Marton Road a new road, say 60 feet wide, is proposed in three sections; suggested names, "Mill Walk," "Tollesby Road," and "South Bar." This road will form a boulevard or ring road joining up the two existing main artery roads leading out of the borough.

From the eastern end of South Bar (the name "South Bar" is taken from the Marton Road or South Toll Bar, and is thought somewhat applicable to the district); a new road, "The Vale," is taken westward to join the eastern end of Eastbourne Road, and from this same point a further road, named "The Coppice," is taken eastward to intercept

Marton Road, opposite the corner of the "Bishop's House," *i.e.*, immediately northward of "Southend." A short length of this road out of Marton Road is already laid out and formed.

Park Road South is continued through the open land westward to Linthorpe Road, and also eastward to Marton Road, *i.e.*, along the course of the "Cinder Path." This forms another ring road also joining the east and the western districts of the borough.

Along the course of Marton beck, an area of land is shown on each side to be laid out for plantations and public walks; this land to be acquired at agricultural value before the formation of roads and the laying out of building sites are undertaken.

The Building Sites.

Parallel with the plantations and the Marton beck, at either side thereof, roads are shown to be made in continuation of Park Vale Road, and go southward to join the outer ring road (South Bar and Tollesby Road). Of one of these roads the suggested name is "Marton Crescent."

With regard to the Acklam districts, radial and ring roads are already formed by the continuation of Oxford Road, and also in another instance by Cambridge Road joining Orchard Road, and the route via Sycamore Road, and along the new road "The Vale" will again join the east and west portions of the borough.

With regard to the building sites, various suggestions are made, but it should be pointed out that in no case are back streets suggested. Back streets are not necessary having regard that for the new portion of the borough w.c.'s are compulsory for all houses and premises to be erected, in which case day-work for dust and ashpan-refuse collection will be undertaken. Night scavenging, especially in the new districts of the borough, is not necessary, nor is it carried out.

The minimum depth of building site (exclusive of street) is suggested at 100 feet, with increased depths to suit the various descriptions of properties. Of course, in some cases a less depth than 100 feet would be permissible to suit varying circumstances.

The number of houses to be erected to the acre is suggested at, say, 8 and less for the better-class houses, and not to exceed 18 or 20 for other kinds of dwelling-houses (this to include area occupied by road and street, &c.).

Open spaces are left at various places, particularly on the main roads. Where motor and other form of mechanical traction is undertaken, it necessarily creates nuisance from dust, and wherever possible small plantations should adjoin the main artery roads.

Residential Roads

The residential roads are laid out in the form of crescents and rectangles to suit the varying conditions of the land. In consideration for the greater depths of sites and for less number of houses to the acre, the Corporation can, under powers of the Town Planning Act, subject, of course, to consent of the Local Government Board, modify the by-laws, and so do away with the back street method for secondary access.

Also modification of the mode of construction for the residential streets could be made, and work of a less costly character than our present construction of roads would perhaps be permissible for the purely residential portion of the district, excluding, of course, the main communicating streets either of artery, radial, or other method of communication.

Every house should, however, be provided with a secondary means of access through, say, a four-feet (at least) passage taken from the front to serve the back of every two houses where built in terraces.

If detached or semi-detached no difficulty would be experienced in forming a passage along the side, which is done at present.

It is hoped that owners and lessees will co-operate with the Corporation and the other local authorities in order that we may get the best results possible so that the development and extension of Middlesbrough and district can be carried out on a well-defined plan.

The proposals contained in the scheme now submitted are in every way suggestive so that some definite plan can be arranged, and the growth of the district carried out in such a manner that future trouble of overcrowding and such-like is avoided.

I have surveyed the whole of the district embodied on the plan, and obtained the names of the owners, lessees, and occupiers, the details of which are as follows: Owners, 180; lessees, 4; occupiers, 300.

When the main lines of road communication in connection with the Town Planning and development are finally agreed upon, the lines for main and other sewers for the drainage of the area should be gone on with, and a plan showing the suggested sewers and drainage can be prepared to show all the necessary sewers with suggested gradients and sizes of same for the proper main drainage of the district in order to avoid complications as regards insufficiency of capacity and such like in the future. In the extension and building up of the district the sewerage arrangements can be carried out suitable in every way for the proper drainage of the extended borough.

In addition to the area covered by the present scheme, in my opinion, some further area outside the borough, including North Ormesby, should also be scheduled for Town Planning. The Middlesbrough Corporation

ought to have some say with regard to Town Planning within reasonable environment of the borough boundaries.

Three of the principal owners of land included in the scheme are (apart from details) in agreement with my suggestions as now outlined, and in consequence the work in connection therewith will be considerably helped.

Plans have just been passed by the Corporation for the erection of 19 houses, Marton Road, and 25 houses, Angle Street, on vacant land (included in the area mapped out for Town Planning) between Marton Road, Angle Street, and Park Vale Road.

An open space, 36 feet wide, is provided at the southern end of the building estate for "cut-through" to join Angle Street to Marton Road. This open space is to be laid out as a "garden street" for pedestrian traffic only, with posts erected to prevent passage of vehicles.

The houses are shown in pairs with secondary means of access by passageway—one passage common to the back of every two houses. There will be no back street.

Depth of sites for the houses in Marton Road will be 92 feet and for houses in Angle Street 60 feet.

S. E. BURGESS.



PLAN SHOWING PENN'S ORIGINAL GRIDIRON
With Central Space and two Main Avenues

PHILADELPHIA

THE REPLANNING OF PHILADELPHIA

On May 15th, 16th, and 17th, in the city of Philadelphia, was held the Third National Conference of the City Planning Association. In conjunction with this took place the first Municipal City Planning Exhibition ever held in America. This Conference marked the third meeting of America's City Planners. The first was held in Washington in 1909, and the second last year in Rochester, New York.

The exhibition consisted of drawings and models of every kind from over forty American and ten foreign cities. Some idea of the vastness of this exhibition may be had from a glance at the various subjects—street and boulevard plans, parks, traction lines, railroads, docks, public buildings, &c., &c. Every department of public works was represented. The chief feature, however, was the exhibition of Philadelphia's plans and models for its City Practical and Beautiful. These were executed by a staff of expert draughtsmen, colourists, and modellers under my personal direction and from my original designs. With the able assistance of Mayor John E. Reyburn, George S. Webster, Chief Engineer of the City Bureau of Surveys, and B. A. Haldeman, Assistant Chief of the City Bureau of Surveys, the exhibition proved to be a great municipal triumph in the annals of City Planning.

Americans are rapidly coming into the realisation of the fact that one of a city's most valuable assets is its municipal adornment. While it is not always possible here in the commercial and manufacturing cities of America to beautify equally all parts of a city, yet it is possible to lay out a civic centre of exceptional design and a park system calculated to give adequate breathing spaces to the city, and at the same time furnish some spot of interest which might induce a traveller to linger, or at least to carry away with him some recollection other than that of brick walls and blistering pavements.

Many other American cities have already taken active measures in this direction. The old block or checkerboard city plan is rapidly giving way to the French or boulevard system, so successfully inaugurated in America by the Architect L'Enfant, who laid out the city of Washington. This same general idea, modified to meet particular conditions, is being used in Chicago, Buffalo, and San Francisco, where they are endeavouring to do away with the less fortunate "gridiron plan" so universally used by the early planners of American cities. This movement toward achieving the "City Beautiful," or more properly the "City Practical," is comparatively new in America. A quarter of a century ago it would have been laughed to scorn. It was not until in 1892 that it first definitely

asserted itself. In that year, the City Fathers of Philadelphia, recognising the impracticability of the existing plan of the city as originally laid out by William Penn, determined to reconstruct it. The main object was to superimpose upon the rectangular gridiron system a series of broad diagonal avenues radiating from City Hall as a centre (Plate 90), which would cut across the rectangular city plots at acute angles, thus giving at frequent intervals parks and open spaces to be adorned with flowers, water basins, and statuary.

The first radial avenue to be undertaken was the Parkway, which should directly connect City Hall with Fairmount Park (Plates 90 and 91).

To Penn the crooked streets of London were abominable, so he planned Philadelphia like a gridiron (Plate 88), with the result that the streets were not only monotonous, but also inadequate as arteries of traffic. The only feature to recommend it was the placing of a Plaza as the great Civic Centre, with two broad avenues as central axes, now known as Market and Broad Streets, but he neglected to make any great radial thoroughfares, such as the Parkway (Plate 90), by which to approach the Plaza.

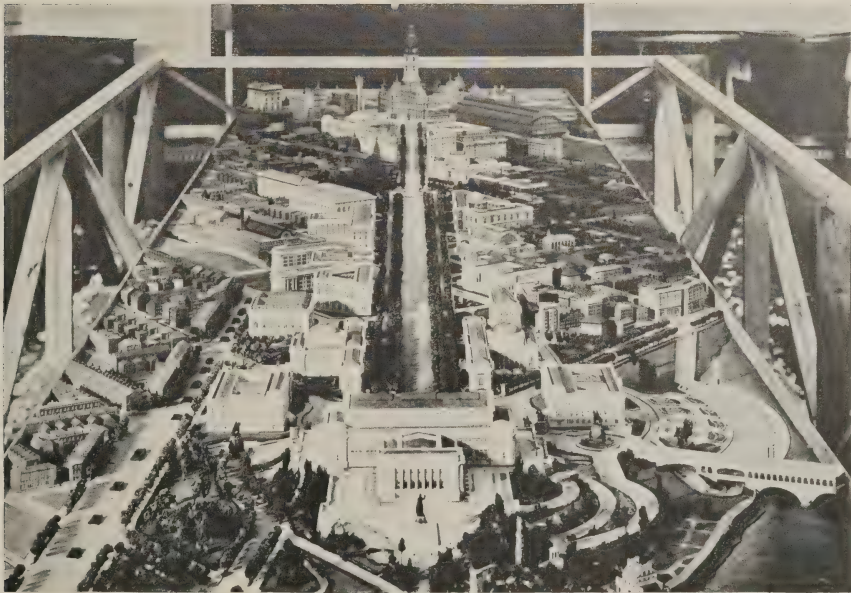
The Delaware and Schuylkill river fronts, which offered such great opportunities for landscape and boulevard treatment, were entirely ignored. The situation, however, was far from hopeless, for with the immense advantage of already possessing a Civic Centre, and a well-located Park system, the problem of reducing the plan to a scientific one was not so difficult. The fact that the real estate values in the region of this projective Parkway were fortunately low, and that the slight natural grade obviated any expensive engineering work, united to make the task comparatively simple and inexpensive.

The enterprise was seriously contemplated and plans made at various times from 1892 until 1902, when the Parkway Association was permanently organised with the endorsement of Mayor Ashbridge, Ex-Mayor Warwick, Assistant Attorney-General James M. Beck, and other prominent city officials. That the matter soon became a subject of vital interest to the city was evident in the active part which the University of Pennsylvania and the various Art Associations shared.

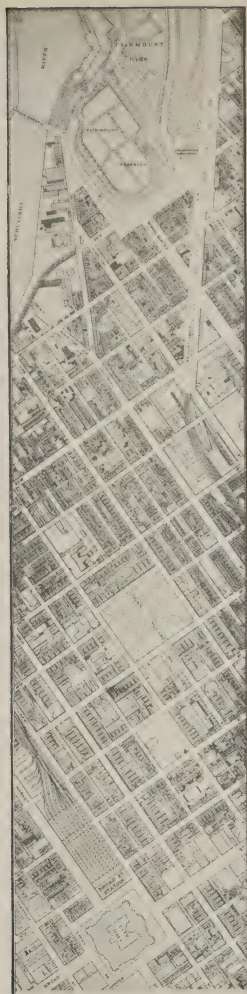
The new plans, as shown in the recent exhibition, are remarkable not only for their beauty, but also the practicability of the scheme. The great Parkway is shown, as it should be, a monumental boulevard, approximately 250 feet in width, patterned after the Champs Elysees of Paris, extending from City Hall Plaza, through Logan Square, to Fairmount Park, a distance of $1\frac{1}{4}$ miles. Here it terminates in a broad and imposing plaza, around which are grouped buildings devoted to the Fine Arts, Science and Letters, and to housing the various art collections



MODEL OF THE PARKWAY
Looking across the City Hall



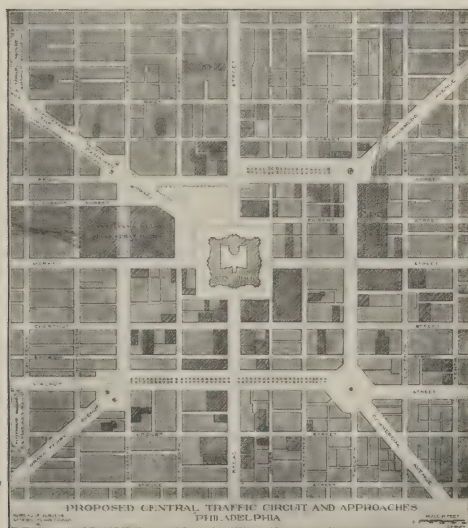
MODEL OF THE PARKWAY
Looking towards the City Hall



ACROSS THE GRIDIRON



DIAGONAL PARKWAY



FOUR SUGGESTED DIAGONAL AXES

belonging to the city. This forms a municipal art centre, which from natural beauty of location and dignity of arrangement can be equalled by few cities in the world.

At the western side of the Plaza, facing the Parkway and commanding an uninterrupted vista to City Hall Tower, is located the Municipal Art Museum (Plate 91), crowning the elevation Fairmount, which gives the Park its name. From this Acropolis may also be had a view of the Schuylkill river and Fairmount Park beyond.

The architecture of this building, as of the others, is strictly classic. This style was thought to be best adapted to the imposing location and purpose of the structure. The Art Museum is approached directly from the Plaza by two broad, monumental flights of steps, which lead up to a wide terrace, from which a wide marble stairway ascends up to the main portico of the Museum.

On the Plaza level are entrances for elevators, which give direct access to the Museum above.

Opposite the Municipal Art Museum, on the entrance side of the Plaza, are placed on either side of the Parkway buildings for the study of Industrial Arts and Sciences. At the northern and southern sides of the Plaza, thus completing the classic group, are also placed monumental buildings for the Applied Arts and Letters. Below one of these, on the southern side, facing the Schuylkill river, is a charming Chateau d'Eaux, or water basin, forming a series of cascades down to the water's edge, where a boat landing completes a delightful scheme of landscape architecture.

The principal entrance to the Park is, of course, the Parkway, which forms so prominent a feature of the new city plan, giving direct communication with the centre of the city. The secondary entrances to Fairmount Plaza are Spring Garden Street, already existing, and Schuylkill Avenue, or River Boulevard. From the diagonally opposite corners of the Plaza (Plate 91) radiate two other boulevards, one of which by the Washington Monument gives access to the Park; and the other to a proposed new bridge over the Schuylkill River to West Philadelphia.

The Plaza is architecturally embellished by two large water basins, similar to those in the Piazza San Pietro in Rome.

A unique feature of the Acropolis is the carriage approach on the western side, which, leading from the corner of the Plaza, winds upward behind the Art Museum until it comes out on the terraced platform on which the Museum is placed.

In working out this general scheme, I have been careful to preserve undisturbed the natural beauties and landmarks of the old Fairmount

Waterworks. These interesting and beautiful old relics are to be eventually used as a City Aquarium.

Work has already begun on this plan, City Councils having appropriated some \$3,000,000 towards the erection of the Library. An approach to the Park from Logan Square, to be flanked by public and semi-public buildings, has been completed, and work is going on rapidly toward its continuation through to City Hall, where hotels, theatres, and clubs are to be located. Much delay is caused by the tearing down of old buildings, and the filling up of exposed cellars and basements. But the relief already afforded by the broad Avenue, cut through the heart of a congested tenement district, is proof in itself of the need of such a breathing space.

The effect of opening this magnificent Parkway has been to enhance the values not only of property abutting upon it, but also upon the streets crossing it north and south, as well as east and west. Hence, instead of increasing taxes, it has become a source of revenue.

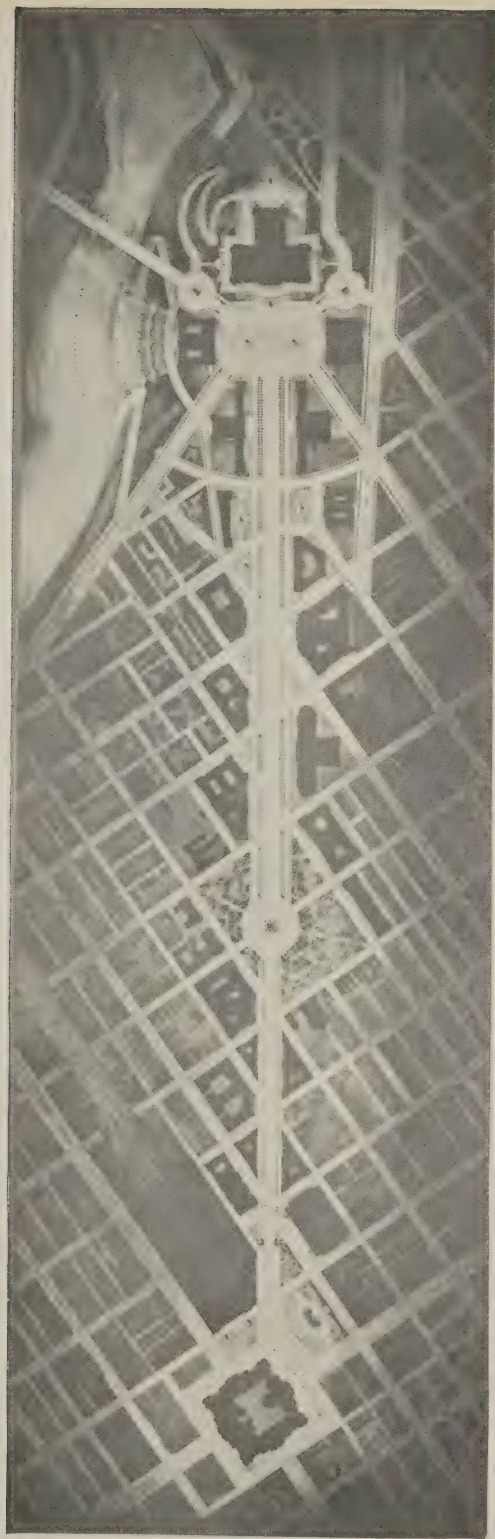
As to the cost, a calculation can readily be made showing that, upon the most reasonable basis, the values of land not only abutting upon the new thoroughfare itself, but for a distance of at least three hundred feet east and west and north and south on the intersecting streets, will so far exceed the present assessments as to make the current tax rate yield a sum far greater than the interest upon the bonds which are now being sold to meet the damages that are found due to owners.

It is well known that the properties upon streets intersecting important thoroughfares are immensely enhanced in value at and near the point of intersection.

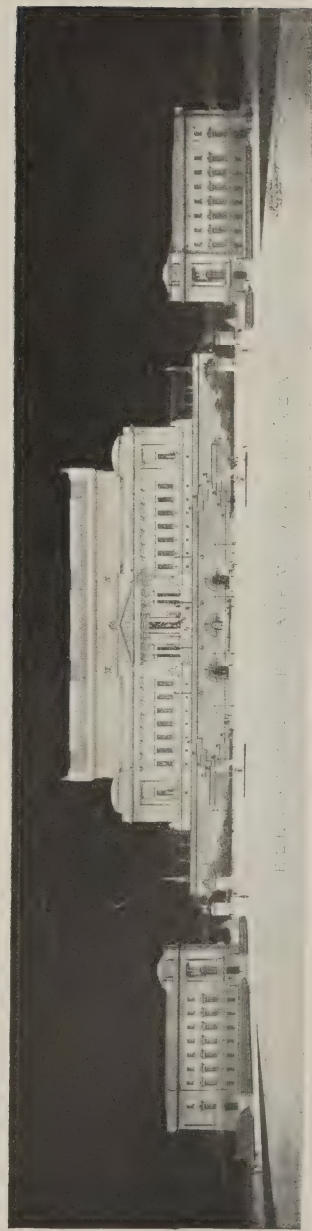
Upon a very reasonable and moderate estimate, an increase of ten dollars (\$10.00) a foot can be added to the present value of ground for a distance of at least three hundred feet on both sides of the streets crossing such a thoroughfare.

There are approximately twenty-four streets which intersect the Parkway, so that in estimating for this improvement to the distance of only three hundred feet from each intersection, there will be twelve hundred feet, including both sides of the street, to be reckoned with. Twenty-four intersections will therefore involve 28,800 feet of frontage; an increase of ten dollars (\$10.00) a foot upon this frontage, capitalised at 5 per cent., will create an increased value of about \$6,000,000.

This increase is entirely exclusive of the property fronting on the Parkway itself. The increase in value of the property fronting upon it will not be less than fifty dollars (\$50.00) a foot, which is probably less than one-half of what it will soon bring. At this figure of fifty dollars (\$50.00) a foot, capitalised at 5 per cent., the value will exceed \$8,000,000,



GENERAL PLAN OF THE PARKWAY



ELEVATION OF THE GROUP AT THE HEAD OF THE PARKWAY

PHILADELPHIA

which, with the \$6,000,000 on intersecting streets, would make over \$14,000,000 of new values.

Upon this value at the present tax rate of \$1.50, \$210,000 would be produced. This is the interest upon a trifle less than \$8,000,000 of City Loan at 3 per cent. This sum is in excess of the damages to be assessed, and a net revenue will therefore accrue to the city immediately. In this estimate no account has been taken of increased values distant more than three hundred feet from the intersections of streets, or of special values at corners, &c.

More could be said to show that the City will not incur any indebtedness by the Parkway, which likewise applies to the other radial axes. Above all, the more important matter for consideration is the fact that these improvements benefit the poorer masses more than any efforts that have ever before been made in their behalf.

Another re-adjustment in the City's plan is being made at the southern end of Broad Street, whereat is located the League Island Navy Yard. About midway in its extent between City Hall and League Island a "Plaza" is laid out with trees, paths, &c., producing a very beautiful landscape treatment, in the centre of which is to be erected the Soldiers' and Sailors' Monument, plans for which have already been obtained by a recent architectural competition.

South of the Plaza, Broad Street is being greatly widened and re-named the Southern Boulevard. This boulevard terminates in League Island Park, on the Schuylkill River, which in turn leads through a monumental entrance to the Navy Yard. Upon the completion of the Parkway and the Southern Boulevard, work will be commenced upon the other diagonal axes radiating from City Hall.

A feature of the City Exhibition which attracted the particular attention of the architectural as well as the lay public was the model of the Parkway. Its purpose was to enlist the attention and interest of the general public, by rendering plans and drawings intelligible to the layman. The ordinary citizen cannot read a plan, or if he can, it does not reconstruct itself in his imagination as it does in that of the engineer and architect. By means of a remarkable model, I have shown Philadelphians how their new Parkway will look.

The model, which was constructed at a cost of about \$15,000, measures five feet in width, and thirty feet in length, and is made to the scale of thirty-two feet to the inch. It represents a section of Philadelphia from City Hall to Fairmount Park, a distance of a mile and a half, and about one-third of a mile in width.

W. E. GROBEN.

THIRD AMERICAN CITY PLANNING CONFERENCE

America has had its third annual City Planning Conference. For the first time the Conference was the guest of a municipality, to wit, the City of Philadelphia.

The City appropriated \$30,000, half for a development plan for the City itself, and half for a general comparative exhibition of European and American City Planning, all of which was on view in the City Hall while the Conference was going on.

The plans for the City were much more practical than most of the city development plans have been in America, especially on the economic side. Aesthetically, the interest was concentrated about the Parkway, leading from the centre of the City to the Art Centre in Fairmount Park, which was conceived in a severe academic manner. The presentation of this by means of an elaborate model and many large drawings was most effective.

The Comparative Exhibition was not full in European representation, but as far as America was concerned no collection of anything like the importance of this has yet been gathered together. For the first time we have had a chance to realise what a huge affair our City Planning movement is getting to be, ranging as it does all the way from the staking out of a village green to the glorious great conceptions of the Burnham plan for Chicago. North, south, east, and west; everywhere towns are beginning to take thought for the future. To be sure, as the exhibition clearly showed, most of this has been "City Beautification"—rather an anomalous putting of the cart before the horse for practical America, but yet, anyhow, a healthful sign.

It will not be the fault of the intent of the Conference if this "City Beautiful" tendency continues to predominate, for the various sessions were planned so as to treat of a number of different phases of City Planning. The Economic, and the Legal, and to some extent the Social sides were given equal prominence with the Aesthetic, and justly so if we would attempt to arrive at an all-round development of the subject. It was just here that the Town Planning Congress of the Royal Institute of British Architects last October, glorious as it was, lost an irretrievable opportunity. For it is strange that the architects, who, thanks to their technical education, are the natural leaders in this subject, fail to appreciate that City Planning which does not begin with the Economic and Social is merely building a house upon the sands.

In Philadelphia there were seven Conference sessions, lasting from two to three hours each. In each session there were a certain number of set papers by recognised experts in the subject assigned to the given period, and these were followed by shorter addresses, called discussions. Much that was of interest was brought out, but most of the sessions suffered by being too formal and inelastic. The trouble was that the set papers took up so much time that the outsider had very little chance to ask questions or contribute his testimony. That this latter was really the most valuable part of the conference was evidenced by the great success of the few sessions where everyone did have a chance, notably Mr. Geo. E. Hooker's session on Docks and Harbours.

Throughout the sessions the Social aspect would hardly have obtained full recognition if it had not been for our English friends who so gallantly came to the rescue. I refer to Mr. Thomas Adams, Mr. Thomas H. Mawson, and Mr. Raymond Unwin. This was markedly at variance with the first American City Planning Conference held in Washington two years ago, for there the social influence of the father of these conferences, the Committee on Congestion of Population in New York, was predominant.

The first session was on "Municipal Real Estate Policies," Hon. Frederick C. Howe presiding. The German and the English policies were discussed with a view to their applicability to American conditions. Such things as Land Municipalisation, Zoning, Lex Adickes, Increment Taxing, Excess Condemnation, &c., were considered, with a great variance of opinion as to their desirability here.

The second session was on "Public Buildings and their Settings," with Mr. Frank Miles Day, former president of the A.I.A., presiding. The discussion centred about Mr. Day's suggesting the use of sites in public parks for art galleries or museums, and Mr. Ernest Flagg's plea for the desirability of tall buildings on wider streets in certain sections.

The third session was on "Buildings in Relation to Street and Site," and was presided over by Mr. Lawrence Veiller, the secretary and founder of the American "National Housing Association." Mr. Veiller stated that City Planning was related to housing only in the matter of the height of buildings, the depth of lots, and alleys, and he went on to show how these should differ under varying conditions, winding up with the bomb that blocks for workingmen's tenements should be only 25 to 30 feet deep, so as to get apartments only two doors deep between streets. This brought out a storm of disapproval; nevertheless, the truth of the idea behind it was not to be contraverted. The discussion, as led by Mr. Adams and Mr. Unwin, centred about their contention that if we would get results in these matters we must go ahead and build in the best way,

and then force the public to conform to these plans for their own ultimate good. Prevention is far cheaper than cure. The Americans, of course, claimed that their people could not be dictated to.

The fourth session was on "Taxation," under the chairmanship of Hon. Lawson Purdy, President of the Department of Taxes and Assessments of New York City. Mr. Purdy discussed the assessing and collection of taxes and the condemnation of land in the light of his New York experience, strongly recommending assessing abutters on the City's improvements and excess appropriation by the City of land about parks, boulevards, &c. Then Professor Goodnow showed that the easiest way in which the City could secure to itself a part of the increasing values which it was continually creating was by levying an increment tax, and that socially, if the City would develop reasonably, it must put a higher rate of taxation on land than on improvements.

The fifth session was on "Docks and Harbours," with Mr. Geo. E. Hooker, secretary of the Chicago Civic Club, presiding, and a most interesting session it was. He showed that the problem of transportation was principally one of terminals, and how desirable it was that a dock scheme should be complete in all the features of warehouses, railway connections, with factories and homes for the workers behind. Hon. Calvin Tompkins, New York Dock Commissioner, made a strong plea for Dock Municipalisation, and proved how it could be made to pay. Then city after city brought in its testimony as to how it was developing its port, with a general agreement in Government ownership.

The sixth conference was on "Street Planning," with Mr. Nelson P. Lewis, Chief Engineer of the Board of Estimate and Apportionment of New York City, in the chair. He pleaded most effectively for narrower streets in residential quarters, nor did he meet with much opposition to this. Mr. John Nolen presented a scheme for the scientific standardisation of street widths, to be determined by the traffic they would be called upon to carry rather than by the demands of abutting buildings. Then the different street surfaces were discussed in relation to their uses, with considerable wrangling over the value of macadam. As to substructures, pipe galleries near each curb proved the accepted ideal.

The seventh session was on "Legal and Administrative Methods," conducted by A. W. Crawford, Assistant City Solicitor of Philadelphia. He pleaded the desirability of a Uniform City Planning Code; in particular calling for excess condemnation, the assessing of benefits on abutters, zoning, *lex adickes*, and the granting of much more power to the Board of Surveyors. These points were strongly combated on the ground that, with the class of officials that are now in power in American cities, it would be impossible to prevent wholesale graft. As brought

out by Mr. Adams and others, the whole matter is one of "amenity," the consideration of which should predominate.

At two lunches informal discussions were held, one on the Garden Suburb, presided over by Mr. Raymond Unwin, and another with Mr. Thomas H. Mawson in the chair.

At the final banquet, presided over by Hon. Walter L. Fisher, Secretary of the Interior, the German Ambassador brought out many interesting facts about German City Planning. Then the Conference broke up with a most eloquent speech by Senator Francis G. Newlands, who exposed a brilliant plan for a National Bureau of City Planning, which should be the recognised clearing house for all City Planning ideas, propagandising, and execution.

The business session continued the present officers in power for another year.

Further conferences in other subjects have shown the necessity of printing the principal papers beforehand so that the writers could devote all their time on the platform to answering questions and discussion.

This third American Conference devoted far too little attention to the Social side of the City Planning, and failed to develop in a sufficiently broad way the Economic. No attention was paid to the question of Education and Publicity, which would normally be so important a function of the National City Planning organisation. On the whole, however, it was a distinct step forward and has undoubtedly increased public interest in the subject; but realising as we do the great possibilities ahead, we trust that in the future these City Planning Conferences will give a larger share of attention to the Social and Economic side of this complex subject.

GEO. B. FORD.

PARIS

Some Influences that have Shaped its Growth

C.—Royalist Garden Design and Squares

The third influence which went to the making of Paris was a conscious and artistic one, and was practically the work of two kings, Louis XIV. and Louis XV. It was undertaken entirely from selfish motives, and was part of the vast scheme of garden design that was being indulged in at their more rural palaces. When through the vicissitude of government these royal gardens and avenues came into the hands of the public, they fitted in a marvellous way into the general scheme of the plan of Paris. Kensington Gardens and other royal parks have fallen to the public lot in London, but merely as isolated open spaces, of much greater extent, it is true, than these Paris gardens, but without becoming worked into the street plan and forming its chief monumental effects. Louis XIV. indeed might be said to have exercised a kind of divine foresight in his purely personal Parisian schemes, and it can hardly be an exaggeration to say that with one exception the greatest spectacular effects of Paris have their origin in this source. There is, no doubt, a great deal to be said for the skilful way in which these garden effects have been retained, modified, and enhanced, and this was part of the work which Haussmann set himself logically to carry forward, but the first praise for the realisation that these royalist features might become integral parts of a democratic Paris is due to the Commission of Artists appointed by the Revolution in 1793.

The most important of these pieces of garden design, of course, was the avenue which Louis XIV. had constructed by Le Nôtre as an approach from his country Palace of St. Germain to the town Palace of the Tuileries. The plan of Jacques Gomboust, made soon after Louis XIV. came to the throne, shows simply the formal garden in front of the long straight façade of the Palace—nothing remarkable in this, and no suggestion elsewhere in the plan of any of the typical later Parisian features, with one remarkable exception, the Cours la Reine, a tree-planted walk or ride constructed by Marie de Medicis in 1616 along the bank of the Seine outside the wall enclosing the Tuileries Gardens.* This is the first tree-planted road of Paris, and the idea was soon to be applied to the encircling Boulevards laid out on the site of the third ring of fortifications by Bullet and Blondel.†

* See plate 94.

† See "Town Planning Review," No. 2, vol. 1, p. 120.



PART OF THE PLAN BY THE ABBÉ DELAGRIVE, 1737

A

PARIS

The new avenue on the axis of the Tuileries Gardens was carried out in a straight line with a double row of trees over the hill on which the Arc de Triomphe now stands for two miles further on, across the Seine, and again for another half mile beyond the river,‡ having a total length in one straight line from the front of the Tuileries of about four miles. In its course were three circular places or Ronds points as they were called, one at the crown of the hill (where the Arc de Triomphe now stands), another midway between this and the Tuileries, and a third at the end of the straight avenue where the route turned off at an angle to pursue the road to St. Germain.

This avenue has become the famous Champs Elysées, the very constructional backbone of the plan of Paris and at the same time the beautiful face which she presents first to the world. Between the beginning of this avenue and the old gardens of the Tuileries, where the line of the fortifications§ crossed it at right angles to touch the river, was formed an open square, at first of a purely royalist character, for here (c)* in 1763 Louis XV. had an equestrian statue erected in his honour, and Gabriel, his architect, designed a setting of pavilions and balustrades. This square was to become the famous Place de la Concorde, the public centre of Paris life. The Boulevard entering at right angles formed the cross vista (H), closed at one end by the Madeleine (1806), continued across the river (G) by the Pont de la Concorde (1790), and terminated at the other extremity by the Chambre des Deputés. This latter was originally the Palais Bourbon, and is an example of the extreme good fortune that has dogged the growth of Paris. The Palace was built here in 1722 without any thought of the Place on the opposite side of the Seine; in fact, there was no bridge across to suggest any connection. But when the Place and Avenue became public property, and the Madeleine, looking down the Rue Royale (the old Boulevard re-named), demanded a termination to the cross-vista, now completed by the bridge—there was the Palais Bourbon waiting, which only needed a new pediment (1804) to correct the angle at which it faced the Seine. The Arc de Triomphe (E), begun by Napoleon I. on the second of the three Ronds points, where the Avenue reaches its highest level, changed the character of the Avenue from a simple approach to the Palace front into a monumental vista; and the destruction of the flat front of the Tuileries—architectural disaster though it was—from a town planning point of view, it must be confessed, was an enormous gain; the open arms of the Louvre, gradually closing in, enfolding the Gambetta monument, until the old Palace is reached, lead

‡ The bridge and portion across the Seine were added by Louis XV.

§ Transformed, as described in the first part, by Bullet and Blondel (see plate 61), into a section of the Grands Boulevards.

* See diagram on next page.

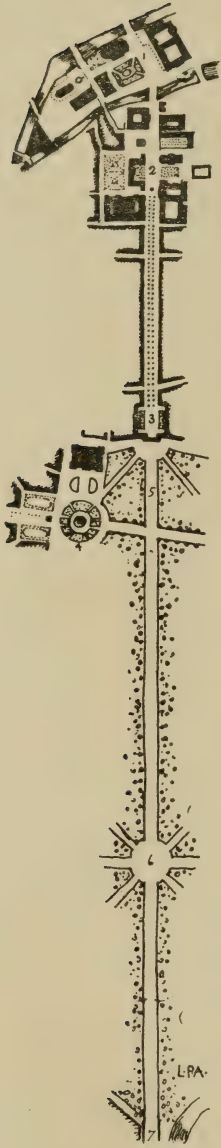
one as it were into the heart of Paris. The little Arc de Triomphe du Carrousel, which now appears out of scale with the vista, was of course only designed as an entrance gateway to the Tuileries Palace from the Place du Carrousel, and the slight deflection of axis from this point to the central feature of the old Louvre (Pavillon Sully) which is evident on plate 93 was never contemplated by Le Nôtre; but these defects are more than compensated by the fine idea of the open arms.

The gradual formation of what appears now one complete conception is typical of the picturesque way in which Paris has grown, and particularly characteristic are the fortunate results from mere chance and even destruction.

The democratic Avenue des Champs Elysées now become a highway and leading directly to Paris's most popular nature park, the Bois de Boulogne, needed a street to connect it with the centre; the Tuileries Gardens and the Louvre could not be perforated without spoiling them, and the old Rue St. Honoré, the original arm of the Grande Croisée which ran parallel, had become totally insufficient as a traffic route by reason of its narrowness and tortuousness. Napoleon I. conceived the Rue de Rivoli for this purpose, but he only carried out a short length of it—that facing the Jardin des Tuileries; the completion of it belongs to the fourth influence in the shaping of Paris. The effect of this Rue de Rivoli, with its unbroken arcaded façade, is to form a gigantic garden wall to the Tuileries, and Napoleon had perhaps as much this in his mind as the traffic problem. Anyhow, the main traffic route has an “elbow” across the Place de la Concorde, which in itself would be sufficient to show to an observer that this central feature of Paris had not been designed as a single conception, but was a gradual growth, makeshift in certain ways, but containing a picturesque and historic charm in delightful contrast with the way in which the whole has been unified by skilful adjustment and formal architecture.



Paris

A Comparison with Berlin

Berlin.

The similar feature at Berlin is an example of an approach and entrance to a city carried out with more complete logicity: the conception is truly magnificent—the long avenue of approach, the Berliner strasse (7), the Charlottenberg Chaussée lined with forest trees and cut through the Tier-garten (6) (infinitely grander than the minute Champs Elysées); the dramatic Brandenburg Gate—the real entrance to the city proper—with the well-considered transition from the forest of the Tier-garten to the town parterres of the Pariser-Platz (3); then the mile long, broad Unter den Linden, the full blaze of the city, faced with the first hotels, restaurants, and shops, widening out to the colossal group of public buildings (2), albeit randomly placed—Libraries, Opera, University, Arsenal, three palaces, and Royal Guard house (is there such a civic centre to be found elsewhere in the world ?); and finally the bridge over to the Island of the Spree, with its group of buildings greater still, the Royal Palace, the Cathedral, and the two museums and two picture galleries. Truly this colossal group of buildings is a fitting climax to the great approach, and not one of the wildest American dreams can excel the town-planning conception of it. As for Paris, you would have to walk over half its area to collect a like number of buildings to group round the Louvre, and you must turn a sharp corner across the Place de la Concorde to keep in the main traffic stream, and yet for sheer beauty there is no doubt that the Parisian entirely outshines the Berlin vista, not only because of its better design, but also by reason perhaps of its mere practical failings, to which must certainly be added its historical charm. The slight rise in the ground, too, is of immense value, and the Arc de Triomphe, with its memory of Napoleon, fires the imagination in a way that no merely well-designed architectural gateway can. The larger

scale of the Paris feature adds undoubtedly to its greater spectacular effect.

Avenue de Vincennes

At the opposite end of Paris, as has already been remarked (page 122, No. 2, Vol. 2), to the Bois de Boulogne, lies the Bois de Vincennes, and here was another royal residence, the Château de Vincennes. This also had to be provided with an avenue of approach to the city, and on the occasion of a certain peace (1660), Louis XIV. was pleased to erect a temporary throne to receive the homage of the Parisians, at a point about half-way between the chateau and the Bastille, which still kept its guardian bastion after the other fortifications had been turned into boulevards. The avenue of approach is the existing Cours de Vincennes, and the Place du Trône has now been turned into a circular star and renamed the Place de la Nation. To anyone glancing in the most casual manner at the plan of Paris, it must appear remarkable that at points nearly equidistant east and west of the Louvre are to be found two circular star-like places, one connected by the straight broad royal Avenue of the Champs Élysées and the other by the crooked narrow old road forming the eastern arm of the Grande Croisée (Rue St. Antoine and Rue du Faubourg St. Antoine); the suggestion at once asserts itself that it was the intention to cut another great avenue through, to the other front of the Louvre, and thus form a royal approach to the centre of Paris from the east to west. But attractive though this surmise is, such a thing can hardly have entered the heads of the planners of Louis XIV.—a royal avenue through open country as a piece of gardening was natural, but to cut through a closely built up town for the same purpose was something beyond the scope of the town planning of the day. It was left for the somewhat doctrinaire suggestions of the Commission of Artists, appointed by the Revolution in 1793, to make this proposal, to give a kind of ideal symmetry to the plan of Paris, though the real object for it had departed, as the Louvre was no longer a royal residence; perhaps the unrivalled magnificence of the Perrault Façade which was to close the vista, enveigled them into this suggestion against their better judgment. Anyhow, the avenue has never been constructed, and Haussmann's continued Rue de Rivoli was the common-sense if more prosaic alternative.*

Other Garden Features of Paris and Religious Enclosures

The Luxembourg Gardens are of next importance: they would have formed no more than a royalist enclosure turned public park (no doubt an admirable gain to the health of the community, but hardly to be counted as conscious town planning) had it not been for another of those fortunate chances with which the plan of Paris is so rife. Almost due

* This will be dealt with in the next part.



RUE DE RIVOLI AND JARDIN DES TUILERIES
Showing Effect as of a Garden Wall



CHAMPS ÉLYSÉES—VISTA FROM THE LOUVRE
Showing Change of Axis





LOWER SECTIONS OF PLAN DRAWN BY LOUIS BRETOZ
FOR MICHEL-ETIENNE TURGOT, 1739

PARIS



south of the Palace of the Luxembourg was placed some 50 years later (1707) the Observatoire, apparently without any thought of connection.† Between these buildings lay the enclosures of the Chartreuse and the Abbaye du Port Royal. What more natural, when these enclosures were confiscated, than to render definite the connection between the two buildings which must have been apparent across the gardens? Hence the famous Avenue of the Observatoire, first suggested by the Commission des Artistes in 1793.

In this connection it is interesting to note that the confiscation of the religious enclosures, which far exceeded in extent those of the king and nobility, has not affected Paris in the way of improvement of light and air. The royal gardens remain to-day—the sole parks of inner Paris; the religious enclosures, with a few trifling exceptions, such as the avenue above described, a corner of the Luxembourg Gardens, and the small Square du Temple, have disappeared and left no beneficent trace on the town. The buildings in many cases have been preserved and put to new use, for example, the Conservatoire des Arts et Metiers (ancient cluniac Priory of St. Martin-des-champs), but the enclosures have been built upon and hardly a trace of them remains. The most remarkable example of this is to be found in connection with the Tuileries. The royal gardens were here faced by three contiguous enclosures, those of the Assomption, Capucines, and the Fouillans; not one trace of these is to be found, but the Jardin des Tuileries remains intact. The explanation is not that the royal enclosures were sufficient in themselves, for Paris is perhaps worse off in her central area for public parks than any other great European capital—though she makes the most effective use of every inch of what she has.

Two other royalist institutions on the left bank, with their avenues of approach and the open space between them and the Seine, have become incorporated with the plan of Paris; these were both military, the Hotel des Invalides founded by Louis XIV. in 1670 to house 7,000 veterans, and the Ecole Militaire founded by Louis XV. in 1751 to train up “500 gentlemen in all the sciences necessary and desirable for an officer.” Both were dropped down, as usual with these royal foundations, without much apparent connection with anything else and have sorely puzzled the heads of subsequent town planners to incorporate into any general scheme. Still they remain, as fine and characteristic features of Paris.

The Invalides had not that usual good luck which we have noted; if its axis had been deflected slightly, it would have led direct into the first rond-point of the Champs Elysées, one side avenue from which, the

† See “A” on plan reproduced on plate 92.

former Allée des Princes (now Avenue d'Antin), which led into the hemicycle in the middle of the Course la Reine, was, as it were, waiting for it. This connection between the Invalides and the Champs Elysées vista was not actually made until 1900, when the Pont Alexander III. was constructed, and the avenue, on either side of which were placed the Grand and Petit Palais des Beaux Arts for the exhibition. The Esplanade in front of the Invalides is still capable of further treatment. Neither the Avenue de Breteuil (in itself one of the most beautiful in Paris), the approach to the Invalides, nor the Avenue de Saxe, the approach to the Ecole Militaire, can be said to work in satisfactorily with the boulevard system of the quarter.

The Champs de Mars, which was added to the Ecole Militaire in 1770 as an exercise ground, on the central axis of the School, between it and the Seine, has given occasion for another great civic conception with the Eiffel Tower, Pont de Jena, and Trocadero on the hill on the opposite bank. The open space has recently been partly built over and the rest laid out as a park.†

Thus it will be seen that these five great features—the Champs Elysées and Jardin des Tuileries, the Cours de Vincennes and Place de la Nation, the Luxembourg Gardens and Avenue de l'Observatoire, the Invalides, the Ecole Militaire and Champs de Mars—with all the subsidiary incidents that have grown out of them, are directly attributable to the work of royalty, and particularly in the direction of gardening; for although the Invalides and Ecole Militaire were founded purely as buildings, it is from the open spaces connected with them, their avenues of approach and the axial vistas which they have given rise to, that they are to be considered in the Paris of to-day. And these fine features, with one additional one, represent the set pieces of sheer beauty which we chiefly remember of Paris.

The Two Woods

The two woods, the Bois de Boulogne and the Bois de Vincennes, which occur so fortunately at either extremity of Paris, just outside the existing fortifications, can hardly be placed to the Town Planning credit of the kings whose property they were. They merely happened to own these woods, which would have existed in spite of them, and by the time the confiscation took place, at the end of the 18th century, the town had by no means grown up to them. Another garden that was created for private purposes, and has fortunately become public also, cannot be said to be part of the town planning of Paris—the Jardin of the Palais

† See "Town Planning Review," No. 3, vol. 1, page 251.



THE AVENUE DE BRETEUIL



THE LUXEMBOURG VISTA



THE PLACE VENDOME

PARIS

Royal, which was enclosed with shops by Philippe Egalité in order to repair his fortunes.

Royal Places

Besides gardens, a certain number of squares or places were dotted about Paris by her kings. These again were erected rather as glorified settings for their statues than as public places or incidents in the town plan. Several of them have resisted the ingenuity of subsequent planners, but others like the gardens are now inextricably woven. The Place de la Nation and the Place de la Concorde could not avoid incorporation—their avenues ensured it—but the earliest, the Place des Vosges* (Henri IV.), has resisted it, and the Place des Victoires (Louis XIV.) is only partially drawn in. The best example of Parisian growth is the Place Vendôme (Louis XIV.)—originally an isolated unit, happening at hazard just off the Rue St. Honoré, then connected up with the newly-formed Rue de Rivoli, later by the Rue de la Paix with the Grand Boulevards, and finally forming one of the diagonals on either side the Avenue de l'Opéra†; it now appears as an inevitable part of the plan, and a casual observer would be barely likely to surmise its gradual enweaving.

But the most important contribution to the development of Paris which these places have brought has been their architectural treatment, which has gradually spread from them to the whole city and become its dominating motif. This consists in the subordination of the individual building to the general effect; the place being originally the setting for a statue, it is evident that the self-assertion of each building would compete with it; the proprietors were therefore prevailed upon to allow a single front to be repeated round the square, and to add to this given façade what plans they required. The Palace des Vosges, the earliest, built by Henri IV., originates the principle, though the simplicity of effect is somewhat obscured by the brick panels and broken hipped roofs; the circular Place des Victoires (1685), though it has been mutilated, shows the treatment more clearly, and it is evident that this quietness of general effect has also influenced the actual detail, and we hence see that typical Parisian treatment of flat street architecture. In the straight street with a monument at the end (the vista, which is the typical Paris street effect), the same conditions held good as in the square with a statue in the middle; the quietness of the street architecture insensibly emphasizes the richness of the monumental building at the end.

The Place Vendôme (1708) is the most ambitious of these royal squares; it is entered only at the centre of two sides and the angles are

* See the former article, No. 2, vol. ii., p. 119.

† This is treated of in the next part.

splayed off, making it an irregular octagon. The idea of a combined architectural treatment is strained here to the utmost, for one corner and three-quarters of one side are occupied by the ministry of Justice, a building far outweighing in importance the others in the square and deserving a separate site for itself. But this is not the fault of the treatment, but of its application.

Not until the year 1909 when the Champs de Mars was laid out afresh has this traditional Parisian treatment, begun by Henri IV. at the beginning of the 17th century, been broken through, and with results sufficiently disastrous, we should imagine, to prevent any similar lapse in the future.

It will thus be seen that the royal influence on Paris, acting entirely unconsciously of anything but its own desires, has produced two essentials of the modern city, its parks and gardens and its typical squares and street architecture. As was explained under the second influence, the boulevards were also instituted by royal initiative, but those were consciously done and with a view to the city as a whole. The other two, though equally important in their results, cannot be laid to the direct credit of their authors, but rather to the good genius which has continuously watched over the growth of Paris.

PATRICK ABERCROMBIE.

THE POSITION AND PROSPECTS OF LANDSCAPE ARCHITECTURE IN ENGLAND

The proposal for the formation of a Society of Landscape Architects for Great Britain, which has been much discussed in private circles lately, and has now been publically mooted in an article by Mr. Abercrombie, raises into prominence the whole question as to the position and prospects of the profession in this country at the present time.

On approaching the subject, the first thing which strikes one is the great difference in the status of the Landscape Architect here and in America. Mr. Thomas Adams, in a well-informed and thoughtful article in the *Municipal Journal* of June 24th, 1911, has so ably summarised the facts that I cannot do better than quote him :—

“ On the technical side, the problems dealt with and the proposals for their solution are very similar to those we have in England. . . . They are approached rather differently in America from a professional standpoint, as the Landscape Architect has a larger say in regard to City Planning than appears to be the case elsewhere. The profession of Landscape Architecture is more developed than here ; it is differentiated more from pure architecture as we understand it, and occupies a much higher plane in regard to intelligence and training than the horticulturist who usually designs and lays out our parks. . . . It is also because of the existence of this school of trained specialists that many æsthetic questions in relation to city development are approached from different points of view by Americans as compared with ourselves. Landscape Architecture has also taken an established place in the curriculum of American Universities.”

A considerable acquaintance and correspondence with the leading practitioners in America, coupled with the unique opportunities for observation which my visits to and lectures before the students at Harvard and Cornell Universities have given me, enable me to corroborate every word of what Mr. Adams says ; I would even add that, in that country, the profession is gaining and must continue to gain in public appreciation.

The reason for the greater advance made by the profession in America than here is threefold. First, we have the fact that it is a comparatively new country, which is not only less hidebound by tradition and precedent, but, by its rapid growth, provides many more opportunities for the

effective application of co-ordinated architecture. Secondly, there is an absence of that absurd dilettantism which, in this country, has resulted in the throwing away of so many splendid opportunities. Lastly, and by no means least, the position is strongly influenced by the unfortunate etymological significance of the term "Landscape Architecture," which, in this country, suggests to most people either unwarranted interference with Nature or a childish attempt to introduce her grandeurs into our towns by little patches of futile gardening.

The modern significance of the term is clearly understood both in America and on the Continent, and its use has become general, and so more or less unalterable; but here, Landscape Architecture, as understood abroad, is practically unknown, and indeed it would not be unfair to state that there are not more than a dozen men who could reasonably seek membership of such a society as that suggested by Mr. Abercrombie.

To avoid a misunderstanding, I would draw a clear distinction between garden design, whether called "Garden Architecture" or "Landscape Gardening," and Landscape Architecture as practised in America. The first relates, for the most part, to the creation of those private gardens of which Englishmen have every reason to be proud; while the latter, though it certainly includes the design of gardens, is more concerned with works of a public nature, including, as Mr. Adams says, the planning of cities.

It is characteristic of the different attitudes of the public to the profession in this country and in America that, while here few people nowadays venture to lay out a garden of any extent without professional advice, the municipality prefers the amateur; in America the order is reversed, the private owner preferring the amateur while the municipality employs the professional. This difference in the popular attitude towards Landscape Architecture in the two countries is further emphasized by the attitudes adopted by the professional man in each case. While the English architect too often imagines that the only essential training is a knowledge of architecture, such as is demanded under the examination scheme of the Royal Institute of British Architects, the professors of Landscape Architecture in America, with equal sincerity, hold that an expert knowledge of scientific surveying and contouring, botany, arboriculture, traffic problems, and a proficiency in draughtsmanship are alone sufficient for successful City Planning, and they therefore neglect the study of architecture.

The true course is, as in every other case, the middle one between the two extremes, and while a knowledge in the round of the acquirements and æsthetic ideals of other architects is essential, it is useless to the Landscape Architect unless backed up by a special training in

other subjects. The chief of these are an expert knowledge in surveying in all its branches, including modern rapid methods of tachymetrical contouring, also of systematic botany, arboriculture and horticulture, and, more important still, of the influence of local conditions on his work, whether resulting from the geological formation, the chemistry of soils, atmospheric conditions, local industrial requirements, or special traffic problems.

The special nature of the training of the Landscape Architect as contrasted with that of other members of the profession, such as the domestic architect, is well illustrated by the fact that, while a study of linear perspective, so far as it relates to the portrayal of individual buildings, is necessary to the latter, the former must be able to make bird's-eye views of the whole city—not, indeed, with the close attention to detail which will characterise the work of his professional confrères, but showing a masterly grasp of the treatment of broad areas in mass. In other words, while the architect in general practice is chiefly concerned in the design and creation of units—whether such units consist of one building or a group of buildings—the Landscape Architect's province is the arrangement and co-relation of these units and the composition of extended areas. He has to harmonise many features, natural and artificial, the first differing in scale and bulk from year to year, and the second constant and abiding, and both classes of material must be so manipulated with a sound practical knowledge of the probabilities in the case of the less stable factors as to make, at all periods of their development, a stately and picturesque whole.

That no school of practitioners whose equipment would embrace even this broad outline of requirements exists in this country at the present time, not even the most optimistic would deny. On the one hand we have the architect in general practice, whose professional requirements are already so broad as to compel him to specialise more or less and who cannot leave his present task to study all the matters which form the technical training of the Landscape Architect without detriment to his work in his own particular sphere, and, on the other hand, we have the engineer who proposes to approach the task with a training which, consisting as it does of a knowledge of exact sciences only, such as sanitation and road engineering, leaves out of account all æsthetic considerations or, worse still, considers the artistic presentment as something superadded to the scheme and not inherent. Besides these we have the sociologist, who neglects all considerations which do not make for the immediate material comfort of the individual citizen.

The experiments in Town Planning in this country which have led

up to the passing of the Town Planning Act provide examples of schemes by all three classes of designers. First we have the scheme prepared solely with a view to the effective placing of individual buildings and the arrangement of frontages, and neglecting every other consideration except the retention of existing trees as ornaments to the buildings to be erected. Then we have the estate laid out on the most economical system possible as regards first cost, upkeep, and the efficient utilisation of every yard of land but on which not a yard can be spared for the creation of a vista, or the arrangement of a flowing line; where ugly bends, giving the roadway the effect of a cul-de-sac, are arranged merely to save a little grading; and lastly that class of scheme in which every tenant is housed exceptionally well—perhaps with a large and well-furnished garden and which pays a solid 5 per cent. on the cost of development and building, but where house has been added to house and street to street, without any preconceived plan of development. Each of these schemes has provided the solution of many problems which beset the Landscape Architect in different aspects of his work, but each is the work of a man trained in another sphere; and so that portion of the task of city building which comes nearest to his own has received prominence at the expense of others, and the side of the work to suffer most in all three classes of schemes has been that which is most essentially the province of the Landscape Architect.

Practically all the Town Planning work done in this country so far has been entrusted to and carried out by one man, who has had to combine in himself the functions of Landscape Architect, sanitary and constructional engineer, Town Planner, sociologist, and financial expert; and no real progress towards a better state of things can be made until it is realised that, while every scheme of any magnitude provides work for each of these, no one person can undertake the tasks of all, but each must be the work of a specialist and the whole be co-related and balanced by the Landscape Architect, whose training has supplied him with sufficient knowledge in the round of the aims and methods of each to sympathise with all and see that every part receives its due place in the *tout ensemble*.

In my own work, whether at Dunfermline, Southport, Bolton, or elsewhere, I have always realised this, and have collaborated with a domestic architect on the one hand and a surveyor on the other, thus ensuring a result in which the particular outlook and requirements of these two main professions shall receive due consideration.

It will thus be seen that, when the inevitable awakening comes to the need for the work of the Landscape Architect, which, with the growing

acknowledgment of the claims of art for expression in our towns and cities, which is so rapidly growing up, cannot be long delayed, there will be abundant scope for the exercise of his functions in this country.

How far the proposed Society of Landscape Architects can aid in arousing public attention to the need of co-ordination in City Planning and what it can do towards the equipment of the men who are to fulfil his duties, is an interesting and important subject, which I hope to deal with in a subsequent article.

THOMAS H. MAWSON.

A TOUR OF THE GARDEN CITIES.

The recent series of visits to some of the Garden Cities, under the auspices of the National Housing and Town Planning Council, had the effect of making one regard them with a comparative eye ; seeing them thus in quick succession one realised what a wide field they cover of suburban development, from the isolated rural village like Earswick to the suburban portion of a large town like the Hull estate. The garden villages of Woodlands (near Doncaster), Hull, Earswick, Bournville, Gidea Park, and the Hampstead Suburb were seen on five successive days, and though Port Sunlight was not actually visited, it was so well known to many of the party that it was inevitably present in the thoughts which the tour gave rise to. There is something particular, some special feature to be studied in each of these villages, and it is the purpose of the following stray notes to point out some of these differences, which contain hints and suggestions for future suburban development. In the first two numbers of our first volume the villages were systematically described ; it is the comparative view that we are concerned with at present.

One of the largest variations which is to be noted is the different price of the land which has been purchased. Hull and Earswick are perhaps the extremes in this particular, the original price per acre of the former being £640, and the latter £70 ; the Garden City which, of course, is to be considered separately, was even cheaper than Earswick, £40 per acre. These differences suggest a considerably wider margin within which development on Garden Suburb lines are possible, with, at any rate, a moderate return on capital assured.

It might be expected that the elaborateness of estate development would vary in inverse proportion to this original cost of land—the estate which had got land cheaper being able, thereby economising, to spend more upon its development. But, of course, it is the reverse that is desired. In the country, as at Earswick, no curbs need be used, the footpaths need not be paved, and grass can be left between them and the road. Whereas the urban estate, such as Hull, must spend more on its roadways, as the larger population would quickly destroy grass-borders, unprotected, and trample simple gravel paths into dirty mush. The Town suburb is therefore under the double disadvantage of higher-priced land, and more expensive estate development, which must be compensated for by higher rents and smaller gardens ; but the fact that each of these two estates, Hull and Earswick, can be proved to pay a



ONE OF THE BACKS AT THE HULL GARDEN SUBURB



MR. LUCAS' PRIZE HOUSE AT GIDEA PARK (ENTRANCE, FRONT)



(GARDEN, FRONT)

net dividend of 3 per cent. shows to what differing circumstances the "Garden City" principles can be applied.

The financial arrangements of these estates are equally various: Port Sunlight is the private property of the firm which has created it, and it exists solely for the object of housing its employés. Hull is a private company, with a dividend limited to 3 per cent.; the whole village is under the control of the directors of the company, and the villagers themselves, through their council, have only a say in the social life of the place; the tenants need not necessarily be in the employ of the firm, Messrs. Reckitt & Sons, who are responsible for the formation of the Company. Woodlands again is a private village, owned by the Colliery Company and actually enclosed within the boundary walls of the estate; the curious feature is here to be found of the local public-house, which is village club, every member paying a nominal subscription to belong; it can therefore be kept open during all hours, and is not subject to ordinary licensing control. Bournville and Earswick are both village Trusts, and any profits have to be spent on improving or enlarging the village. In Earswick the communal life is particularly strong; the actual affairs of the village are not administered by the trustees, but by a village council, nine of whom are elected by the tenants and two appointed by the trustees. We understand that at the present moment no trustee is a member of the council which passes all plans of houses and determines who shall become tenants, &c. Hampstead again is a Trust which owns the land and has laid out the estate, but which has been developed by separate bodies—the Hampstead Tenants (co-operative organisation) and the Hampstead Suburb Development Company (a company without limited dividend). Gidea Park is also a private company without limited dividend.

When we come to the consideration of the planning of the villages, it is instructive to note of what vital importance in the final effect is the actual way in which it has been carried out; for example, on paper the plan of Woodlands appears far more interesting, at any rate in the more formal part, than that of Hull. But in execution, owing perhaps to the dust and dirt of the colliery and a sort of general feeling of shabbiness, the general impression of the Woodlands village was far inferior to that of the Hull, which represents the last word in neatness and thoroughness. Bournville, again, which has a plan of comparatively small architectural interest, for the same reason as the Hull village, appears equally satisfactory; it has also the wonderful beauty of the two playgrounds—the men's an unobstructed open green with a noble bank of trees to the south, and the girls' an exquisite enclosed garden; these two reflecting admirably the different natures of the sexes. Port

Sunlight, again, has a plan whose interest depends upon the fact that it was decided by natural features—the ravines which run up from the Mersey, the roads skirting round them.

As regards the actual outward appearance of the individual cottages, Port Sunlight is perhaps the most interesting, the effect aimed at being the utmost degree of picturesqueness, arrived at by the employment of many different architects; economy, also, at any rate in the earlier cottages, can hardly be said to have been studied, so much as sheer beauty and charm. Perhaps for simple design the Woodlands cottages are as satisfactory as any, but as everywhere in this village the effect is quite marred by the bad materials with which it is carried out; one is apt to be so put off by this, as not to notice several points of high merit, both in external design and planning of the cottages; indeed, the plans of the Woodlands cottages are exceedingly skilful and more ingenious for example than those at Hull, which represent a somewhat common-place type, carried out, however, with the greatest care and the most admirable workmanship in every detail.

Perhaps the simplest and plainest cottages to be found anywhere are those at Earswick; and the earlier type cottages, at any rate, are quiet and pleasant, and thoroughly suitable to their rural surroundings; the more recent cottages, in spite of great similarity, appear just to miss the effect of the earlier, whether it is in the shape of the window-openings, or that the brickwork has not the soft cream colour-wash. A similar slight decline is visible at Bournville; the workmanship and materials are equally as good, but a certain ordinariness appears to be creeping into the design. Gidea Park can hardly be compared with these others, as the houses are mostly standing by themselves and are of considerable size; like Port Sunlight, they are the work of many different architects.

There is one feature, a small one, but of great importance to the conduct of life, which varies greatly—the treatment of the backs of houses in the matter of yards and gardens. At Woodlands the houses in one part of the village are built round large open spaces or greens; the backs of the houses are entirely open, more so even than the front. A narrow paved way runs along, and on this facing the back door of each cottage is placed the dustbin—there is no privacy and no screen for those little untidinesses which are very apt to appear near the back door; there is a tendency for these little untidinesses to get scattered on the whole enclosed green, which presents a certain dirty, squalid appearance. Instead of a garden at the back, or allotments in close proximity, these must be far away, and the house, except for a little show garden in front, is situated in a kind of public desert. At Port Sunlight the old-fashioned walled-in yard still persists with its full privacy;

the cottages are also built round hollow spaces, but instead of being left blank, they are filled with their own allotment gardens. The front gardens are not cultivated by the villagers but by the firm, in order to obtain a more uniform effect. Hull, Bournville, and Earswick have long strips of garden attached to the back of each cottage. A very successful compromise is arrived at in Hull by enclosing a small space round the back door with a trellis, which, without the hardness of a brick wall, gives the effect of privacy. There is nothing flimsy about these trellises, which are constructed of creosoted wood, the posts let into iron sockets which are dowelled into stone slabs; the actual appearance is very pleasing, and though, when the garden hedges have grown up, they may hardly be necessary, at present, with privet plants a bare two feet high, they give that privacy and reticence which the growth of civilization requires.

At Gidea Park, perhaps, the best solution for a larger type of house was that adopted by Mr. G. Lucas (see Plate 96). The plot is wide enough to be able to keep the yard to one side of the house—convenient also for tradespeople—and the back of the house is quite free from “back door” effects, and is treated frankly as a garden up to the house walls.

The most constant feature about these Garden Villages is the number of houses which are allowed to the acre—from eight to ten is about the variation—and, after all, this is the real determining factor, and that which differentiates them from the ordinary suburban planning and building. The minor differences which we have alluded to are but the more interesting as showing under what differing conditions—strict model bye-laws, relaxed bye-laws, and private acts—at what different prices of land and for what different situations and classes of property, this “Garden City” can be applied for suburban planning. It remains now to see this grow from isolated examples to an ordinary practice.

P. ABERCROMBIE.

REVIEWS OF CURRENT PERIODICALS AND NEW BOOKS

The Builder

The Builder for September 29th is a valuable number from our point of view. Not only does it contain the monthly supplement of Civic Design, but the body of the paper contains an interesting article on the well-known firm of American architects, Messrs. Eames and Young, of St. Louis. Like so many American architects, these gentlemen have given some considerable attention to City Planning, and among the illustrations reproduced are some fine projected boulevards for St. Louis and competitive designs for an immense improvement scheme at West Point. But more interesting still is a scheme of theirs for developing a residential estate in St. Louis, with blocks of flats and ample gardens—all interior areas being avoided. This strikes us as an example of expensive flats in the central area of a town with the usual disadvantages attendant, reduced to a minimum.

The supplement of Civic Design contains a well-illustrated article on Sculpture in Civic Art—chiefly drawn from Paris—and charming examples they are too. The object of the article is to point to the contrast of the poor setting of most of our London statues.

There is also a full translation of the conditions of the Dusseldorf competition, which is one of the most important town planning competitions which have been held lately, ranking almost with the Berlin and Australian Federal Capital.

Garden Cities and Town Planning

The September and October numbers of this attractive and readable monthly keep up well the interest in this special aspect of the now large subject of Town Planning. When the *Garden City Journal* was first published it was the only periodical dealing with the subject, and the "Garden City Idea" was the only phase of Town Planning which this country had much first-hand knowledge of. Since then the science of Town Planning, as understood here, includes the whole scheme of city existence applied equally to our existing towns with all their imperfections, as to an Ideal City Beautiful, founded in the midst of fields and free from errors from its beginning.

In the September number, Mr. Cecil Harmsworth, M.P., contributes an appreciative article on Mr. E. Howard, that dreamer of dreams, and writer of a modern Utopia. He has lived to see his book grow into an

actual and visible city, planted down in the midst of fields to demonstrate the significance of an idea.

Messrs. Colwin Allen, Alwyn Lloyd, and Harry Stewart publish their report dealing with the housing of the workers who will be required when the proposed extension of the London Docks takes place. According to their report, unless reasonable action is taken, the new works will be houses on a sodden waterlogged marsh on about the river level. They suggest that under a Town Planning scheme this land should be scheduled as suitable for docks rather than dwellings, and they quote a somewhat similar extension at Frankfort-on-the-Main, where an industrial quarter has been mapped out in relation to the new dock and factory extension. Is it altogether too much to imagine that what is possible for a town like Frankfort is altogether beyond the means of London?

The October issue contains a review of a new book just published by the German Garden City Association, which was founded on the model of the English. This record shows the extraordinary growth of the movement in Germany—there are at least twelve Garden Villages or Suburbs in the strict sense of the term, and others in prospect.

Mr. Eversley Hampton contributes an interesting note on Social Life in Co-partnership Suburbs. When many of these suburbs have been in existence for some years there should be a considerable body of valuable material available for the use of the sociologist.

Mr. W. H. Gaunt writes an article on the industrial development of Letchworth, which bears out the clearness of Mr. Howard's foresight.

“Les Amis de Paris”

“*Les Amis de Paris*” continues admirably in its course. If the idea of this town magazine was taken from some of those American ones which we from time to time have noticed, it has certainly improved vastly on its originals—even to about the same extent that Paris excels every American city in beauty and interest. We wonder if such a monthly publication might not be possible for London; surely there is enough of purely local London events going on every month to fill 30 pages—what with King Edward memorial schemes, continual acts of vandalism, improvement proposals, records of suburban growth, criticism of corporate bodies, &c. At any rate there seems sufficient in Paris to justify the existence of the magazine, and we note with interest that the circulation has reached 30,000 copies a month. Particularly glad are we to see that peculiarly Parisian features—the continuity of their street architecture—is being jealously guarded by the friends of Paris. We are apt to regard the Rue de Rivoli as something absolutely and

clearly unalterable—a matter about which there can be no doubt—and it comes something of a shock to find that things are not so simple and to hear that in the Rue Castiglione, which leads from the Rue de Rivoli to the Place Vendome, and along which the same street front is carried, two hotels have recently raised their roofs by two storeys, thus breaking the effect of the street. M. de Selves, the Prefect of the Seine, is sharply criticised, for, apparently, though the roof itself is not specified in the “servitude” there is precedence for the prevention of any disfiguring feature in a special position of this sort. If one proprietor adds two storeys to the roof, why not another six or seven, and then what would be the effect of the Rue de Rivoli from the Jardin des Tuileries?

We read with pleasure that the Grand Medal of the Société centrale des architectes français (founded in 1840) has been presented this year to M. Augustin Rey. The medal is awarded in recognition of the architectural works of a private nature (as distinguished from official commissions) which French architects have carried out. M. Rey is known to us chiefly as a zealous social reformer, an authority on the health of cities, and an admirable exponent of the principles of Town Planning, and it is most interesting to hear of his services in the realm of pure architecture receiving such high recognition.

It is interesting to note that the design for the great project for elongating the Avenue des Champs Elysées and de la Grande Armée until it reaches the Forest of St. Germain is now before the Conseil d'Etat, which, we understand, means that it will become law very shortly. This is the crowning stroke to the great avenue of approach described in the article on Paris in this number. We see that when completed it will be possible to go from the centre of Paris in electric car, in twenty minutes, to the superb Forest of St. Germain—and under trees the whole way!

Local Government Review

The Local Government Review for September contains another of Mr. Arthur Dean's admirable series of lucid articles upon the practical application of the Town Planning Act. The two parts of the present instalment deal with two closely associated phases of procedure; firstly, the public conference which is held under Article III., with the object of the Local Authority showing to the public in general, and particularly those landowners interested, the area which the Local Authority proposes to include in a Town Planning scheme; their reason for deciding that a scheme is necessary; and their reason for selecting that particular area. The pitfall into which an unwary president of the conference might fall, the real scope of what is to be discussed, and the question

as to whether a vote should be taken or not, are all dealt with by Mr. Dean in a clear and vivid manner. The second part describes the Local Government Board enquiry, held before giving the necessary authority to prepare a scheme. The two questions which alone are to be dealt with at this enquiry—first, whether or not a scheme should be prepared, and secondly, if so, for what area—are emphasized. We feel that this series of Mr. Dean's should go far towards removing prejudices and giving a clear idea of what the legal application of town planning principles involve.

There is also in the same number a valuable note by Mr. Richardson Evans on Control of Public Advertising, particularly in connection with the recent action of the Conference of Urban District Councils of England and Wales, in adjourning the matter for consideration to their meeting next year. Mr. Evans writes to correct some misconceptions which found expression in the speeches of delegates who opposed the motion of Mr. Johnson, clerk of the Maldens and Coombe Council, to the effect that the Advertisements Regulation Act of 1907 should be supplemented by legislation to enable all Local Authorities to give appropriate protection in every part of the area under their jurisdiction. Mr. Evans gives the reasons for the limitations of the present Act, and we hope that at the conference next year this matter will be thoroughly thrashed out.

The Surveying and Housing World

We have received the first monthly issue of this paper, which represents an amalgamation between the Local Government Officer and the *Housing World*. The object of the new magazine is to combine the advantages of a weekly and monthly periodical, by appearing once a week in an unillustrated form and once a month as a larger and illustrated magazine. Thus items of news will be circulated week by week and once a month articles of a more permanent value will be included.

The first monthly promises well; it contains a full and illustrated article on the Liverpool Corporation Housing schemes, and another interesting account of Sheffield's two Town Planning schemes, with forecasts of possible future developments. We hope to have a full article upon Sheffield's attitude towards Town Planning in our next issue.

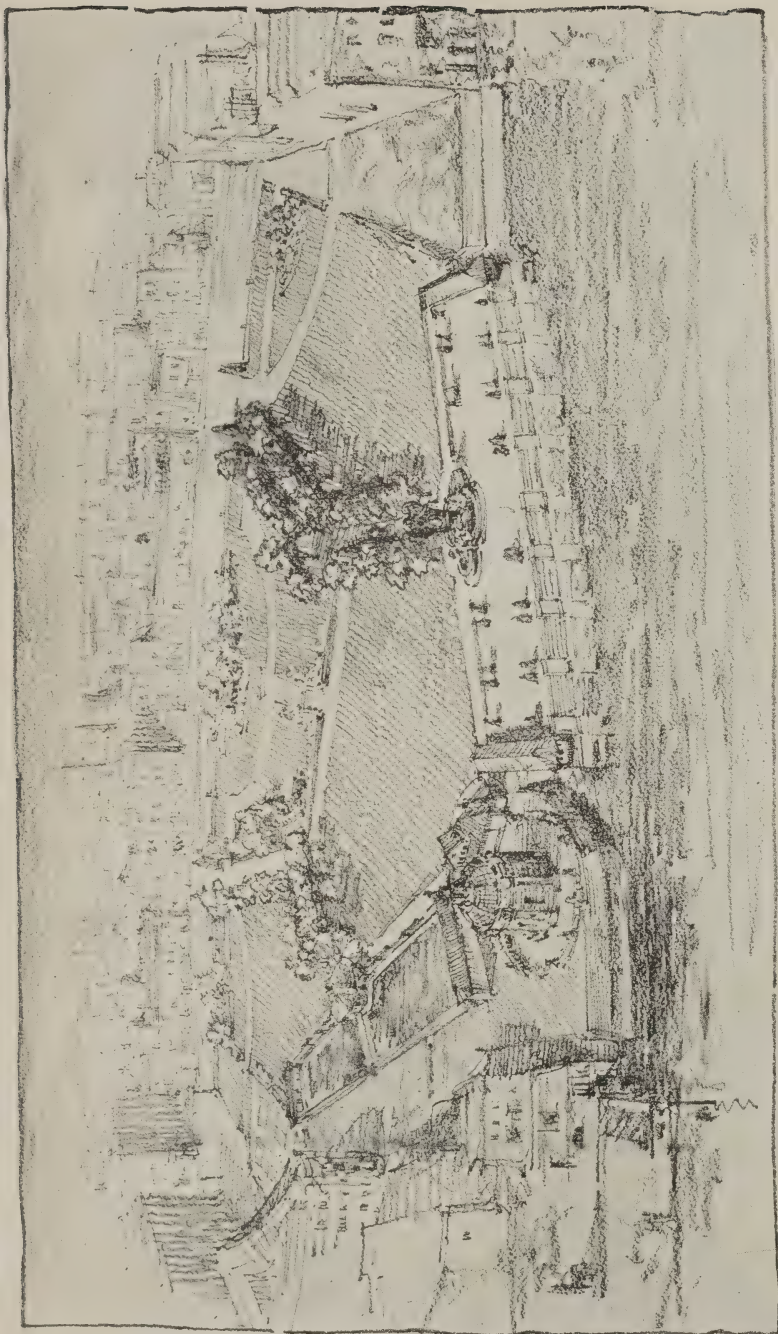
A reprint is given of the paper read by Mr. Bryce (Borough Engineer of Partick) before the annual meeting of Scottish Borough Officials, which was held in Glasgow this year. The subject was "An Engineering Aspect of Town Planning," and the paper contains many valuable points.

We are glad to welcome this new (or rather newly combined) periodical, as we feel that it is a further sign of increased interest in the subject, and we wish it a wide circulation.

Städtebau

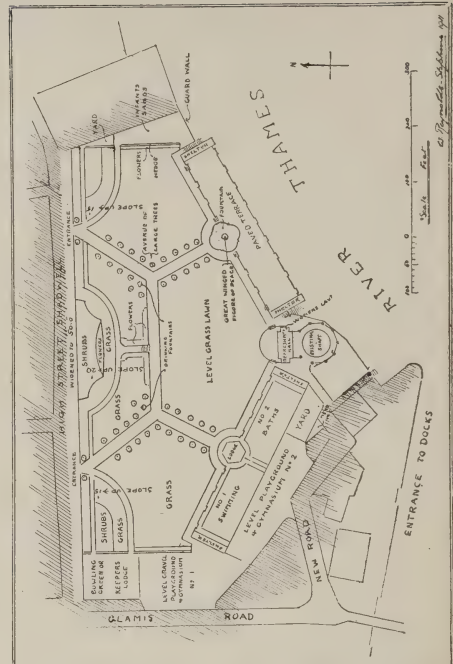
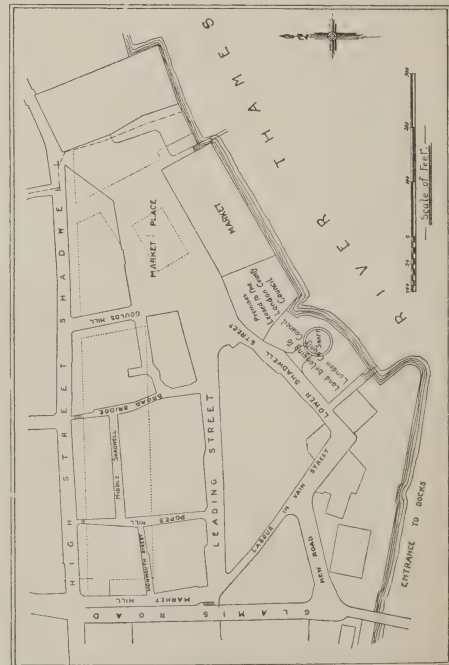
Städtebau for September contains a scheme for the remodelling of the Savigny Platz at Charlottenburg, by Messrs. Lesser and Rosenthal. The object of the scheme appears to be to introduce a more complete tree planting round the square, and to simplify its general lay-out by keeping the central space as a large unbroken lawn. A children's play space is provided at one end on a slightly-raised terrace overlooking the square, and at the opposite end a charming pergola is suggested, giving an effect of enclosure, so difficult to obtain when a square of this sort is cut through the middle by a broad tram-street like the Kantstrasse.

The October number, which we have only just time to allude to, contains some interesting proposals for a building plan for Athens. These are of such importance that we hope to be able to devote some more space to the suggestions in a future number.



PROPOSED KING EDWARD MEMORIAL AT SHADWELL

SKETCH ADUMBRATING ACTUAL APPEARANCE



SUGGESTED LAYOUT

CHRONICLE OF PASSING EVENTS

Memorial to King Edward at Shadwell

One of the many proposals for a memorial to King Edward has been a park or playground in the East End of London, and Dr. Paget, Bishop of Stepney, suggested the formation of a riverside park on the site of the old Shadwell Fish Market. We feel strongly in sympathy with this form of memorial, which aims at breaking through the tradition that every good thing must be placed in that part of the city where most good things are, and that the bad part must remain unrelievedly bad. We therefore hope that a portion of the money may be expended in this way.

On Plate 97 we illustrate the plan, which has been made for this suggested site by Mr. W. Reynolds Stephens, together with a rough pencil sketch of its appearance from the river. While admiring the efficient use which is made of this space from a recreational point of view, providing, as it does, swimming baths, gymnasias, various playgrounds, children's play spaces, sands for infants (a doubtful thing in this part of London), bowling green, refreshment hall, as well as riverside terrace, walks, and lawn, we feel that as a piece of garden design it is hopelessly bad. Mr. Berrington's sketch, made for the *Builder*, would appear to have been made for the purpose of showing up this weakness of design. Ostensibly it is a symmetrical plan, but it is of just that sort of symmetry which brings formal gardening into disrepute; the swimming baths and riverside terrace cannot be regarded as features of equal importance from which to take converging avenues of trees. The terrace with its Statue of Peace overlooking the river, of course, gives the main axis for the composition, compared with which nothing is of equal value. Also the dog-legged avenue leading from behind the statue would have the most distressing

appearance; five pairs of trees in a straight line are not sufficient to produce the effect of an avenue, and we doubt very much whether larger trees could be grown in this position.

We feel very strongly that if the memorial takes this form, the best expert knowledge on monumental gardenings should be brought to bear upon it. Though it be situated in the East End, *anything* is not good enough for it. And if, as is suggested, the figure of Peace shall hold up an olive branch to the ships of the nations that pass by, she should do it with some dignity, and not in a manner to raise the mirth of some of those foreigners who are unfortunately, as a rule, very much better educated in this matter than we are.

Suggestions to Promoters of Town Planning Schemes.

The Royal Institute of British Architects has published Part I. of the suggestions drawn up by its Town-planning Committee, as a result of the Town-planning Conference and Exhibition held in October, 1910. The suggestions contain a short preface by Mr. Burns, who points out that they indicate the considerations to which the architect would give most weight in framing a Town-planning scheme. He also suggests that it would be a desirable thing if the conference of engineers and surveyors held at West Bromwich were to issue a similar code from the point of view of the engineer and surveyor.

"The co-operation of the architect, the surveyor, and the engineer, with the local authority," says Mr. Burns, "on the lines suggested by the Royal Institute of British Architects will help towards the formation of plans that will provide for the well-ordered extension of towns and suburbs, as their population grows."

In this first part the R.I.B.A. Town-planning Committee give a series of broad

and comprehensive suggestions with regard to town planning in general and naturally do not deal exclusively with suburban development; the second part which is in preparation, is to contain a short summary of the powers and opportunities arising under Part II. of the Housing and Town-planning Act.

The suggestions are contained under eleven headings: 1, Civic Survey; 2, Technical Survey; 3, New Traffic Facilities; 4, Main and Subsidiary Centres; 5, Traffic Centres; 6, System of Main Roads; 7, Secondary Roads; 8, Character and Treatment of Roads; 9, Areas reserved for special purposes; 10, Open spaces; 11, Buildings. As would be concluded from the title, these are only dealt with in a suggestive and outline way, but by tabulating these aspects and giving a general summary of the important points of each, the Institute has made a valuable contribution to the subject.

Under heading 9 we note the following paragraph: "The excessive scattering of individual buildings is not desirable on account of the large area that would be covered by the town, the inconvenient distances created within it, and the excessive cost of carrying roads, water and other services throughout such a system of development. Some degree of concentration of the buildings in certain places is thereby desirable, and would allow a more generous provision of open spaces to be made; on the other hand, the danger of overcrowding the dwellings in one place to allow a larger open space to be obtained in another must be guarded against." This bears out what we have several times said, that the limitation of 10 houses per acre has its limits of applicability.

The final paragraph under heading 11 appears to us to give a good definition of the province of the architect in town planning: "The preparation of all the data upon which the design must be based hardly falls within the province of the architect; and it would seem that this formulation of the city's requirements, and

of the limits within which the designer must work, is the proper sphere of the surveyor (aided of course by the engineer, the valuer, the economist, the sociologist and the antiquarian). He should survey the conditions, suggest the requirements, and should be consulted as to the methods of satisfying them; but for the design of the town plan, the architectural trained mind is as essential as for the design of a single building; for the work consists in applying upon a wider field and with greater scope the same principles which govern the designing of individual buildings. The appreciation of the relation of masses and voids, the apprehension of the right points to emphasize, and the power to combine into one creation many differing parts by bringing them into harmonious proportion are equally required in the field of town planning, if there is to be produced that rhythm in the plan, and that spacious breadth of ordered elevation in the groups of buildings, which so largely constitute the beauty and grandeur of cities."

Standardisation in Town Planning Exhibits

After there have been held several exhibitions of Town Planning, such as those of Berlin and Dusseldorf, London (last October) and Philadelphia, it has become apparent that there is a lot of material that goes from one exhibition to another, and that a great deal of time might be saved if a certain amount of joint action were taken between European countries and American in order to provide a sort of central exhibition bureau. We understand that this question is still under discussion by leading representatives of the Town Planning world, and that the subject is to be developed under two headings, first the preparation of exhibits in standard sizes, and in forms that admit of easy reproduction, and secondly the development of some sort of organisation for the purpose of facilitating an international exchange of material and for minimising the

cost of duplicating and distributing exhibits which are likely to be required in many places.

While strongly approving of the desirability of saving labour and expense, and realising that the question is only in a tentative stage, we would like to suggest that there can be such a thing as over classification and standardisation; an exhibition which was practically all contained in frames of the same size would be very wearisome to examine, and we have to remember that it is generally the public that we wish to interest—the expert has usually seen the rather limited number of exhibits, which appear everywhere, many times before.

Lectures on Town Planning

It is interesting to note the general spread of Town Planning by means of systematic lecturing.

Firstly, there is the Liverpool School of Civic Design, which is now entering on its third year. The object of this course is, as is well known, to give special instruction to young men, whether engineers, surveyors, architects, or landscape designers, in this wider subject. It is therefore training up the rising generation of experts (or a limited section of them) with a grasp of some of the intricate problems of city life and development.

Secondly, this winter is to be established, by the act of the Bournville Trust, at Birmingham University, a course of lectures which while not being an actual school of training will, at any rate, open the door to such an establishment. Mr. Raymond Unwin is delivering this course.

Thirdly, Mr. Henry Aldridge, Secretary of the National Housing and Town Planning Council, is arranging to give a course of three lectures in various towns. The object of this series is to stir up interest throughout England. The first is historical; the second deals with Town Planning in relation to public health, municipal economy, and the provision of amenities,

concluding with a description of the principal examples of Garden City Planning; the third is more technical, and outlines the administration of the Town Planning Act in this country, pointing out among other things how the average citizen is directly concerned with this legal proceeding.

Fourthly, Mr. Culpin, secretary of the Garden City Association, is arranging Lectures both in London and the Provinces, treating of the whole subject of Town Planning as well as the special aspect which the Association propagates.

Fifthly, a committee, with the presidency of Mr. John Burns, has been started under the auspices of the School of Town Planning of the Liverpool University for the purpose of providing special lectures required by different localities. If it is a phlegmatic population which requires stirring up to take an interest in the action of a progressive council, a simple popular lecture will be arranged; a lethargic council may sometimes be roused by a more technical lecture setting forth the advantages of the Town Planning Act; again, a detailed legal discourse on the actual preparation of a scheme can be given if required, and other lectures of similar specialised sort, such as the question of compensation, the effect of limiting the number of houses per acre, &c. Professor Adshead is acting as Hon. Secretary to the Committee, and Mr. Raymond Unwin, H. V. Lanchester, T. Mawson, and others have consented to deliver lectures as required.

It may thus be seen that a considerable amount of systematic educational work is being done, both for authorities, specialists, and the general public, and it is to be hoped that some definite results will ensue—the outward sign being, of course, the initiation of a number of Town Planning schemes, and the inward, the improvement of technique in dealing with our cities with regard to general planning and particular artistic equipment.

We also note with interest that Mr.

Mawson is giving a course of 12 lectures on "Civic Art, Town Planning, and Landscape Architecture" at the University of Toronto this autumn.

Lever Park, Rivington

The presentation of Lever Park, Rivington, to the citizens of Bolton, which took place on October 11th, was the occasion of a great popular demonstration in favour of recreation for the working class. There were present the Mayors and Councillors of Liverpool, Bootle, Birkenhead, Bolton, and Chorley, and in a great speech which was delivered by Sir William Lever, primarily on the question of Capital and Labour, he maintained that efficiency of workmanship results entirely from efficiency in labour, and that again from high wages and ample recreation. But to the Town Planner the interest of the presentation lies in the fact that it is one of the first of what may be described as Public Nature Reserves rather than parks in connection with our big industrial towns. The public have yet to realise that it is not sufficient for a great town to possess its intimate parks. The enormous spread of our cities has rendered it equally important that our cities own public reservations such as Lever Park. Parallel examples are rarely to be found attached to our northern towns, but Epping Forest and Burnham Beeches are examples of similar reservations in the south.

Report of the Liverpool City Building Surveyor

We have received the Report of the Liverpool City Building Surveyor, Mr. John T. Alexander, on the work of his department during the year 1910. The Report contains interesting and valuable statistics as to the number and rentals of houses erected in the city during the last 15 years, and we note that during 1910 1,710 houses were erected, which is 439 less than last year and 396 below the average of the past 12 years.

But the most interesting feature of the Report is a reference to the new co-partnership suburb at Childwall, which we reprint in full. It is exceedingly gratifying to know that this progressive work is viewed so favourably by authorities who are placed in position to see carried out by-laws which often hamper rational development.

"The last year has, however, seen the beginning of an experiment of great interest and possible value to the city and the entire community. The Liverpool Garden Suburb Tenants, Ltd., being the local branch of the Co-partnership Tenants, Ltd., has commenced the building of a 'Garden City' in Wavertree and Childwall, the Wavertree portion being, of course, within the boundary of Liverpool. The erection of houses tasteful and varied in design and provided with open spaces affording some opportunity for the cultivation of flowers and trees, will add considerably to the appearance of the suburbs, and may be influential in inducing the more commercial landowners to lay out streets and estates in a similarly attractive manner.

"The beneficial effect on the character and well-being of the people who will live in such delightful surroundings, in the provision of which sunlight and pure air and other sanitary necessities of healthful living are so admirably secured, must be incalculable. Another and very important consideration is that the erection of these 'Garden City' houses in a manner which makes it possible to lay out not only a very limited number of houses to the acre has accentuated the fact that the existing by-laws may operate somewhat needlessly in respect to such houses. It is probable, therefore, that the Corporation will during this year obtain powers to modify or relax in some respects the by-laws, the purposes of which are fully achieved in a Garden City without the actual requirements being observed in every literal particular. Certainly, when a little time has elapsed, and trees, shrubs, and hedges have grown sufficiently, the appearance of the Liverpool 'Garden Suburb' should be very



The Enjoyment of a Garden



LIVERPOOL GARDEN SUBURB



WAVERTREE NOOK ROAD, FROM THE JUNCTION OF NOOK RISE



LIVERPOOL GARDEN SUBURB

NOOK RISE

pleasing, and should afford an excellent example of artistic and picturesque laying-out of streets, houses, and open spaces."

Liverpool Garden Suburb, Wavertree

Fifteen months of progress has wonderfully changed the appearance of the part of the estate under development, to wit, what in July, 1910, was 12 acres of pasture from which the hay had just been removed, is now a veritable village containing 96 houses completed and tenanted, with 30 others in course of erection. Two entirely new roads have been made, respectively 36ft. and 60ft. wide, providing about half a mile of building frontage. A bowling green and two lawn tennis courts have been laid, and a gravel playground about half an acre in extent has been provided for the children and furnished with swings and see-saws. The tenants, anxious for the welfare of their new acquisitions, have wisely refrained all through the long, fine summer from playing on the green, so that the new turf might have every chance of taking root, and have busied themselves in the gardens with excellent results, as was shown on Saturday afternoon, August 19th, when the first annual show of flowers and vegetables grown on the estate was held, and a wonderful show it was both in quality and quantity of the exhibits, considering that only two or three of these amateur gardeners had been in possession of the

garden for six months. The green has, however, been the scene of many social gatherings—amongst them an evening lecture on "Garden Villages' Aims and Ideals," by Mr. Henry Vivian; a garden-party and tea provided by the ladies committee, to which all tenants were invited; several *al fresco* concerts, and Saturday evening meetings of the Discussion Society—evidence enough that not only has the estate been systematically planned and developed, but that the community is also being organised and directed in the paths of good fellowship and good citizenship. This organisation is not confined to tenants, for a football field has been provided, and the building staff, some 130 strong, have now a well-founded football team affiliated to one of the numerous local leagues. To return, however, to the buildings themselves, it will be found on analysis that the rentals are as follows:—

19 at £15 (7s. per week inclusive of rates).
22 at £17 (8s. per week inclusive of rates).
56 at £20 to £24.
17 at £24 to £28.
12 at £28 to £35.

126 total.

The houses in Wavertree Nook Road, illustrated on plate 99, are let at a rental of £21 to £22 per annum; and the cottages in the lower illustration on plate 99 (Nook Rise) are let at 7s. and 8s. per week, inclusive of rates.

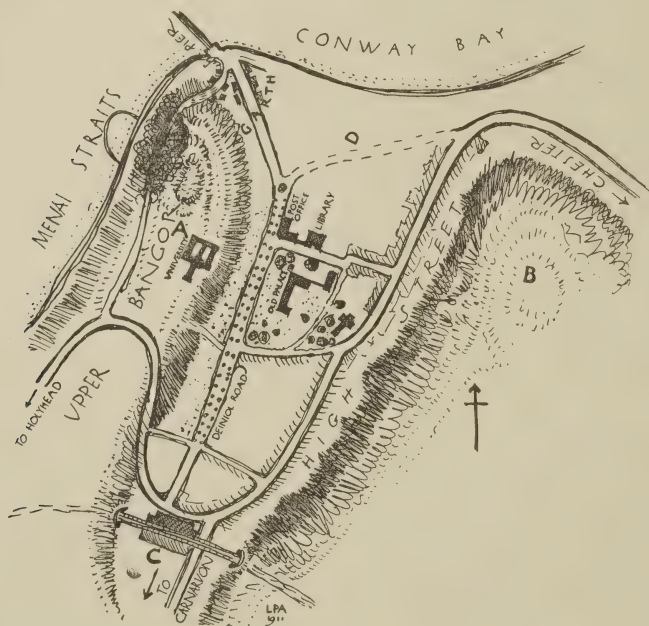
A PILLORY

Some Examples of Incongruities and Defacements of Existing Towns

Two Buildings at Bangor, North Wales

The little cathedral town of Bangor, in North Wales, has recently come into some prominence by reason of the opening by the King of the New University building. The town itself, which is much

High Road from London to Holyhead, which skirts the precipitous side of the east hill and winds up the easier gradient of the western ; the houses on this higher reach are known as Upper Bangor and are really a detached suburb. At the point where the road crosses the valley (C) the railway line emerges from the

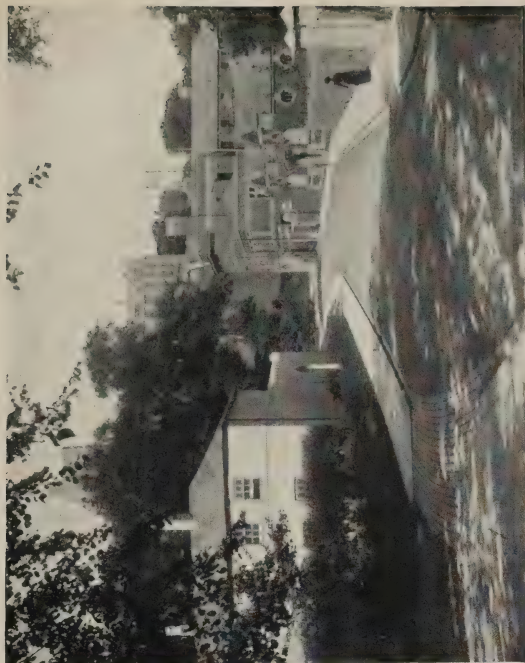


less known than it should be, has an unusual and charming situation. It lies in a fold between two hills, that on the west (A) separating it from the Menai Straits, that on the east hiding it from the huge mass of the Carnedd group of the Welsh mountains. Until quite recently the whole town bordered the

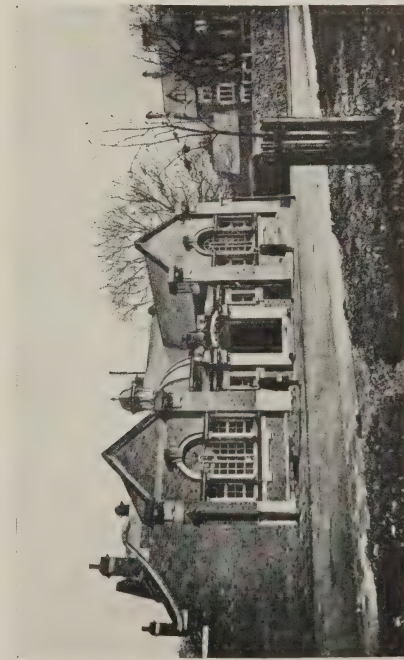
tunnels of either hill and the station has been placed, and to one side of it, underneath the line, runs the Caernarvon Road. At the extremity of the western hill (A) is another small suburb or port, called Garth, and from here extends a pier into the Straits and there is a ferry across into Anglesey.



THE OLD BISHOP'S PALACE
WITH THE NEW UNIVERSITY BEYOND



THE NEW GROUP ON THE RIGHT
THE OLD PALACE ON THE LEFT



THE NEW LIBRARY
BANGOR



THE NEW POST OFFICE
AND THE DEINIOL ROAD

The houses and shops have been so intent on hugging the High Road for the traffic and business it brings, that the town has entirely neglected its water front, which looks over that bay of wonderful beauty from which Madoc set sail for the discovery of America. On the northern hill, dominating the town and with an amazing view from its terrace, over this magnificent bay, stands the New University. The ground rises up to it steeply, a grass slope on which are growing a few fine forest trees. Between it and the High Road, in the valley, lies the quiet and quaint little cathedral, set in trees, and near by is the old Bishop's Palace, a simple colour-washed brick building, dating from the beginning of the nineteenth century and full of quiet charm.

In order to make a better direct connection between the station and the ferry, a new road, *Fordd Deiniol*, was laid out in 1903, planted with trees; this passes by the Bishop's Palace and skirts the foot of the slope on which the University stands. This new road, running nearly parallel with the old High Street, is evidently destined to become a second main street of the town, and it only needs a more evident connection with the Holyhead Road (D), to divert a great deal of the through motor traffic which now throngs the High Street; this is, as usual, narrow and irregular and is the shopping area of the whole district.

It must be further mentioned that in 1903 the Bishop's Seat was moved out of the town to a superb site on the Anglesey side of the Straits and the old Palace turned into municipal offices and opened to the public, with what charming effect may be judged from Plate 100. Here, then, just off the busy High Street, is a delightful town picture: The side of the cathedral, half hidden in the trees of the Canons' garden; the old Palace, with its smooth and sunny lawns; the new tree-planted road and the rough grassy slope leading up to the fine and romantic University, crowned by its central tower;

to the left of the University the slopes of the hill of Upper Bangor, with terraces of houses and gardens, tier above tier.

It was natural that with a new library presented by Mr. Andrew Carnegie, a new post-office and Inland Revenue office provided by the Government, a site should be selected on this new road and close to this group which we have been describing—it is the heart of the new and important Bangor which is certainly growing up as the great educational centre of North Wales. But the quality and character of Bangor is not one of pushing showiness (it has little attraction to the casual holiday-maker), but rather of quiet homeliness, set in surroundings of truly Welsh romance, and above all a sobriety of colour; the blue slates which come from Bethesda and which, as well as education, are Bangor's staple industry, naturally prevail as a roofing material; even though they are usually associated in our minds as the blue lids of the red boxes of our suburban houses, in Bangor used on the older buildings, in small sizes and comparatively thick, they produce a sober harmony with grey stone and colour wash, which is the characteristic colour scheme of the town.

It was, therefore, to be hoped that the new buildings would preserve some of this quality, and Mr. Hare's University, with its beautiful materials (the roof, by-the-bye, is not Bethesda blue, but a light greenish brown slate from the other side of Snowdon) and somewhat rugged and picturesque architecture is in the true Welsh spirit, which has little to do with the austere purity of classic art. But, unfortunately, the other two new buildings which, as the first in the new road, are bound to influence the future growth, are utterly out of place. Their material and colour, which no photograph can do justice to, are perhaps their worst offence: The most brilliant blazing red brick, freely cut up and "enriched" with stone, heavily moulded, can hardly be expected to be harmonious with the old colour-washed

Palace, the weather-beaten cathedral, and the mellow University.

As regards their style the photograph, taken from the road leading into the New Road, will show the gulf which lies between the Renaissance, which they are supposed to represent, and the true spirit of repose which a corner of the old Palace suggests. Both these new buildings—the library and the post-office—produced under different conditions, are extreme examples of the evils which these conditions frequently cause.* The library was a public competition. The architects who won knew full well that if they sent in a design as simple and as charming as the old Palace, it would never be looked at; they therefore proceeded to design a front “quite fungoid,” as Mr. Wells has it, “with external features”—a small dome, two gables enclosing columinated Venetian windows, heavy enough for a mansion

*The University was also a competition, but a huge building is much safer to be competed for than a small one.

house, and a door-way of imposing proportions crowned by a sculptured cartouche. The whole building is only one storey high and the “façade” about 45 feet long. The post-office, an example of official architecture, was designed, we imagine, in a London office by a draughtsman who probably had never seen Bangor. He thought, no doubt, he was doing an up-to-date “clever” modern design which was going to show the Bangorians what their town really *should* have been like, and his use of pressed red brick and chequered quoins and bands of stone, certainly goes a long way towards overthrowing the quiet dignity of the little town and introducing a garish swagger in its place.

The point is whether Bangor is improved by this swagger and pretension. For our part we feel it is not. It is but another example of the necessity for the study of a town if its growth is to preserve its individuality and beauty. ♀

COMMISSION DITE DES ARTISTES
ou réunion de la loi de 3 avril 1791
 pour la division des grandes propriétés nationales
 en lots et en l'assèchement

COMMUNE DE PARIS

Plan dressé par les Artistes, Architectes, et Ingénieurs, le 3 avril 1791.



AN EPOCH-MAKING PLAN FOR THE IMPROVEMENT OF PARIS
 Prepared by a Commission of Artists, Architects, and Engineers, appointed 1793
 This plan is of unique interest as anticipating later works of Napoleon I. and Haussmann
 "De la Revolution date vraiment, à tous points de vue, le Paris nouveau."—Marcel Poete

THE TOWN PLANNING REVIEW

Vol. II

January, 1912

No. 4

EDITORIALS

THE NEW CAPITAL OF INDIA

It is only 18 months ago that we made the statement that the foundation of a Capital City on a virgin site was an opportunity for Town Planning which had "hardly occurred more than three or four times in the history of the world," and we have now the Capital of India which it is proposed to create near Delhi, so that our former statement requires considerable modification. In fact, these two Capital Cities will probably lead to others, when it is realised how very much better in a new country it is to found a new capital without being hampered by an old town which was founded for another purpose.

In our *Review* we have always laid stress on the fact that Town Planning is not merely a question of designing suburbs and garden villages, but even though present legislation be limited to city extension, the only complete study of the question must embrace the whole city and all its activities. To this end we have published descriptions of Great Capital Cities such as Washington, Paris, and Vienna, though when we began there seemed little likelihood that this study of great cities of the past would have such an immediate application.

The new Capital is to be, in the first place, an administrative centre, the buildings immediately to be erected being a palace for the Viceroy, Law Courts, Administrative Offices for the different departments of the Indian Government, bungalows, hotels, &c.

We offer our congratulations to the members of the Committee who have been chosen to report upon the plan—Captain George Swinton, Chairman of the London County Council; Mr. Edwin L. Lutyens, F.R.I.B.A.; Mr. H. V. Lanchester, F.R.I.B.A., and Mr. John A. Brodie, C.E., City Engineer, Liverpool.

We are pleased to note that all four gentlemen have in their different spheres been connected with Town Planning as a specialised subject.

We associate Captain Swinton's interest in the subject with his article on the development of London. With regard to Mr. Lutyens, we may remind our readers that besides being the architect appointed to prepare designs for the King Edward Memorial, he is also consulting architect to Hampstead Garden Suburb, and is the author of the Plan for Knebworth.

Mr. H. V. Lanchester, of the firm of Messrs. Lanchester and Rickards, has a high claim to consideration as an architect of experience in monumental work. Their scheme for the Cardiff Municipal Buildings and Law Courts just completed, and his intimate association with the Town Planning Movement, are well known. He is Secretary to the Town Planning Committee of the Royal Institute of British Architects, and as Editor of *The Builder* he has done much to encourage Town Planning and monumental architecture.

Mr. J. A. Brodie, City Engineer, Liverpool, is best known in connection with the pioneer work of roadmaking, which he has carried out for the city.

THE HALIFAX COMPETITION

The eagerness with which Town Planning schemes are being prepared, both in the initial stage of, and as preliminary to, the adoption of the Act, in each case by the officials of the Local Authorities, and apparently with very little reference to public interests as represented by the local architects, antiquarian societies, &c., is a matter calling for consideration. We feel that it would be a great pity if the Town Planning Act became entirely ensconced in the lap of officialdom. The evidence of this is borne out in a note which recently appeared in the *Sheffield Weekly Telegraph*, where an Advisory Board was very wisely appointed, but apparently not consulted at all. This attitude of affairs appears to set up a chilled feeling of isolation amongst architects throughout the country, and we understand that the Town Planning Committee of the Royal Institute has now this matter under consideration. Under such conditions it is of particular interest to note that the Rt. Hon. J. H. Whitley, M.P., recently inaugurated a competition amongst the architects of Halifax for the planning of their town.

Mr. Whitley did this, we understand, purposely, feeling that a preliminary scheme prepared by architects might tend to enlarge the horizon of the officials without seriously interfering with any practical scheme. We contend that the architect has a distinct place in Town Planning; but though in the first stage his position may be merely an advisory one, it should certainly be recognised, and we commend to other civic patrons like Mr. Whitley the value of the object-lesson which he has set in his town.

PUBLIC INTEREST IN TOWN PLANNING

We are always harping on the need for publicity in Town Planning matters—what is mere Advertising for a baser purpose becomes Propaganda in a nobler cause; we must keep dinning into the public's hearing "till irksome noise doth cloy their ears," and they are forced to take an interest in this vital question, and feel that they must know something about it, if they are to enter into intelligent intercourse with their fellow men.

In this connection we commend the action of the Liverpool Co-partnership Tenants, who have an article on their estate every week in the *Liverpool Weekly Mercury*. We are reading these notes diligently to see how it is possible for a small community of 400 persons to keep up an interest and furnish "goings-on" for a weekly column of news, and we think that it will be one of the strongest tributes to the activity, the living zest of this little suburb if they can keep it up. They have certainly chosen the best type of paper in which to chronicle their doings; these weekly editions, including the Sunday papers, connected with a daily paper, perhaps have as much influence on the country as the whole of the rest of the publications of the country—daily papers, magazines, novels, and belles lettres—put together. They appear at the end of the week, to summarise the daily news; they always contain a considerable amount of humour—which is as essential to the English race as bread—and there is the leisure of Saturday night and Sunday to read them in. But, above all, they are the papers the women of this country read and form their opinions upon, and, after all, it is their influence which ultimately governs the country. We should, therefore, like to see these weekly papers throughout the country bombarded with Town Planning news, and the siege kept up until the British Public had capitulated and frankly become its dependent subjects. The Americans, who

can generally teach us something on the subject of Propaganda and Advertisement, have an organisation, "the Civic Association," which sends round "clipping sheets" of readable matter set up in columns and ready for insertion without more ado. We would like to see some such organised effort of this sort made in this country, and if ever a National Society of Town Planners or Town Planning Association were formed, this premeditated assault of the ears of the public should be one of its first undertakings.

OUR CONTRIBUTORS, PICTORIAL AND LITERARY

We take occasion of the completion of another volume to thank all the contributors, pictorial and literary, who have helped us so materially during the past year. We must confess to several cases of remissness, where acknowledgment has not been duly made at the time, and trust that this will not be counted too harshly against us. Particularly we wish to thank Mr. Thomas Edwards, of Bangor, for the permission to reproduce the view of Bangor contained on Plate 100, and to many people who have kindly lent us blocks.

We hope also that wherever possible we have given due credit to the authorship of the designs which we have from time to time published, and in this connection we would like to say that the scheme for a garden suburb at Thurstaston, in Cheshire, which was described on page 163 as having been prepared in the School of Civic Design, was actually the work of Professor Adshead.

REPORT OF THE LONDON TRAFFIC BRANCH OF THE BOARD OF TRADE.

MAP OF GREATER LONDON SHOWING EXISTING AND PROPOSED MAIN ROADS.

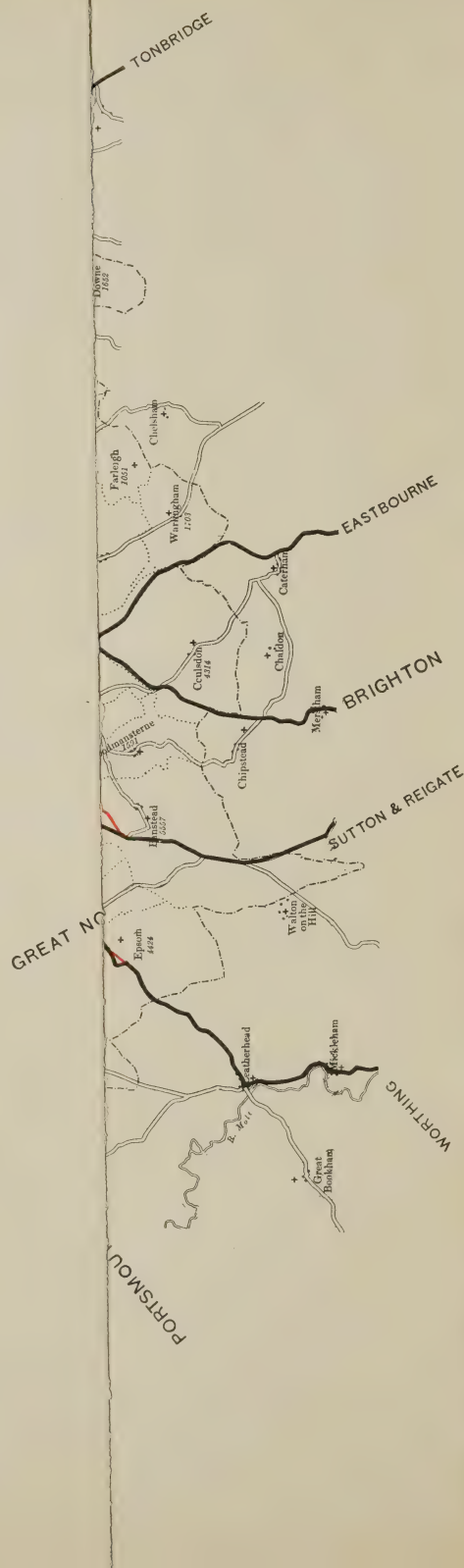
The administrative area of the L.C.C. is shaded grey. Greater London is enclosed within the outer dotted line.



REPORT OF THE LONDON TRAFFIC BRANCH OF THE BOARD OF TRADE.

MAP OF GREATER LONDON SHOWING EXISTING AND PROPOSED MAIN ROADS.

The administrative area of the L.C.C. is shaded grey. Greater London is enclosed within the outer dotted line.



THE RECOMMENDATIONS OF THE LONDON TRAFFIC BRANCH OF THE BOARD OF TRADE, 1911.

The numerous Town Planning schemes in preparation both in and immediately beyond the outer ring of London, considered in connection with the report and recommendations of the London Traffic Branch of the Board of Trade, 1911, provide matter for reflection. It is not the purpose of this article to discuss these Town Planning schemes, but rather to note the statistics which have been so ably set out in this most valuable report, to consider the inferences which may be deducted therefrom, and to summarise these in so far as they influence Town Planning. Another article in this current number, "Town Planning in Greater London," by Mr. Abercrombie, deals with the schemes themselves.

This third report shows that considerable revision has been made in the map of proposed new roads since the publication of the second report. Evidently the whole of the ground has been again gone over. Scarcely one route shown on the plan published with the 1910 report is identical with what is shown now. In the railway map many new steam lines are shown electrified, entirely new routes are shown projected, and a wonderful activity is revealed in improving the railway systems. It also embodies the result of the census, the statistics extracted from which add considerably to its importance.

For convenience the metropolis and its suburbs are divided into spheres of influence. The administrative county, as is well known, extends from Hammersmith in the west, to East Ham and Plumstead in the east, and from Stoke Newington in the north to Mitcham and Penge in the south. Between this line and the line which roughly extends to a radius of 15 miles from the centre we get what is known as the Outer Ring, and between here and a further circle, having a radius of 30 miles, we get what is known as the Outer Suburban Ring.

The report is accompanied with maps which show the density and distribution of the population, and others which show the main thoroughfares, both present and proposed, also the railways, tramways, and omnibus routes. It further gives the result of exhaustive enquiries into the working of the different systems of locomotion and transport.

The trains, trams, and motor omnibuses, which have been introduced during the last 10 years would appear, when first put into operation, to have exceeded the demand for transport which they were intended to supply. In addition to this the futile and needless competition which

was set up between one system and another made each unprofitable. Now, however, after an experience of some 10 years' duration, important amalgamations have resulted; the demand for a quick service of mechanical transport has shown a rapid increase, and it is safe to say that at the present moment practically every system of public conveyance in London is able to show a profitable return.

These increased facilities for inter-communication have accounted for a wonderful migration in the population. We find that since the year 1881, when the railways for the first time commenced seriously to undertake improvements in their suburban systems, that there has been an increasingly rapid growth of population in the suburbs with a corresponding decrease in the area of the administrative county. Not only has the increase in the population of the administrative county rapidly declined, but the last census shows that what up till 1901 had been a growth, has between 1901 and 1911 become an actual decline. The population in the Administrative County of London in 1901 was 4,536,267, and in 1911 4,522,961; but in the Outer Ring in 1901 it was 2,045,135, and in 1911 2,730,002. Even this does not adequately express the expansion of the population, as beyond the Outer Ring innumerable suburbs have arisen and others have increased their population. Between the Outer Ring and the 30 mile radius the population of 1911 was 1,229,788. and this shows an increase during the last 10 years of 173,480.

Those boroughs in the administrative county which have lost inhabitants to the greatest extent are: Holborn 24 per cent, Finsbury 22 per cent, Southwark 12 per cent, Marylebone and Stepney 10 per cent, Westminster 9 per cent, and St. Pancras 6 per cent. In the urban districts within the Outer Ring we find that extraordinary changes have occurred in the distribution of the population between the intercensal periods, 1891—1901 and 1901—1911. We find that during the first period the population of Wimbledon increased at the rate of 61 per cent, which increase was reduced to 31 per cent in the second period. Kingston increased at first 27 per cent and then 10 per cent, Richmond 17 per cent and then 4 per cent, Erith 88 per cent and 9 per cent, Willesden 87 per cent and 34 per cent, Hornsey 61 per cent and 17 per cent, Edmonton 84 per cent and 38 per cent, West Ham 30 per cent and 8 per cent, East Ham 193 per cent and 39 per cent, Leyton 56 per cent and 26 per cent, Walthamstow 105 per cent and 31 per cent, and Ilford 277 per cent and 89 per cent. On the other hand Barnes shows an increased rate of growth during the latter period from 21 per cent to 70 per cent, as also do Ealing from 37 per cent to 85 per cent, Heston and Isleworth from 18 per cent to 40 per cent, Finchley from 32 per cent to 78 per cent, and Southgate from 36 per cent to 124 per cent. These

figures indicate the areas where the most rapid developments are at present occurring. The areas of rapid development are not necessarily however the most important or the most extensive. Those areas in the urban districts in the Inner Circle which have developed during the last 20 years into centres of greatest importance, and where the population shows the greatest numerical increase are Willesden, which has a population of 39,456, East Ham 37,496, Ilford 36,961, Croydon 35,664, and Tottenham 34,750.

In the rural districts within the Outer Ring the rate of increase during the last 10 years has become twice what it was during the previous 10 years, the actual increase in the last 10 years being 74,799, of which 14,591 has occurred in the parish of Mitcham. But the increase in the population of the metropolis is not confined to the boundaries of the Outer Ring, a boundary which is perhaps more generally known as enclosing the area of Greater London. It is also of interest to note what has taken place in the Outer Suburban Ring. Referring to the Registrar-General's report, 1911, we find that in Hertfordshire the population has increased during the last 10 years at the rate of 22 per cent, Essex 20 per cent, Surrey 18 per cent, Buckinghamshire 16 per cent, Sussex 11 per cent, Kent 10 per cent, and Berkshire 6 per cent. The greatest increases in Hertfordshire have occurred at Watford, which accounts for 11,523, St. Albans 7,886, and Hitchin 6,743. In Essex, Grays shows an increase of 9,928, Romford 3,271, Brentford 3,728, and Chelmsford 2,051. Surrey shows an increase of 5,106 at Godstone, and of 5,892 at Woking, and other increases in this county have been greatest at Reigate, Guildford, Leatherhead, Walton, Chertsey, and Cobham; in each case the increase being over 2,500. The greatest increases in Buckinghamshire have occurred at Eton and Marlow; and suburbs on the Chiltern Hills show a very rapid increase in their populations also.

It is pointed out that beyond the 30 mile radius a very large population travels daily into the metropolis from such places as Southend, Bedford, Oxford, Reading, Herne Bay, Brighton, and Worthing.

But in contemplating the great increase in the population outside the Administrative County of London it must be borne in mind that this is not entirely due to outward migration, it has to be accounted for both by this and also by an increase in the birth-rate. The report shows that migration accounted for a loss of 552,233 to the population of the administrative county, and a gain of 321,841 to that of the Outer Ring, or a net loss of 230,392 to the population of Greater London as a whole. If it be assumed that the Outer Suburban Ring gained at least 43,319 by migration, the excess of migration from Greater London to places more than 30 miles from the centre over migration in the contrary direction could

not have been less than 187,073. It was probable somewhat larger, and inasmuch as the population of many places within easy reach of London, though more than 30 miles distant, increased abnormally, it may be inferred that they owe part of their increase to migration from London, and that part—perhaps a considerable portion—of the excess was absorbed by them. The relative degrees of density particularly in the administrative county is of some interest; the average in 1901 was 60·6; it is now 60·4; the greatest density was recorded in Shoreditch, 189 per acre. In 1911 the greatest density is recorded in Southwark, 169 per acre.

Between 1901 and 1911 it decreased rapidly in Finchley and Holborn, but increased in Fulham, Wandsworth, and Lewisham. A similar redistribution of density also occurred in the Outer Ring.

To summarise, it is shown that the population of the metropolis has during the last decade diminished in the centre, and increased outwards, the causes which are to be attributed to this outward migration are, of course, the improvements which have been effected in suburban mechanical transport, followed by an energetic development of selected areas. But looking more intimately into this outward migration of the population we find that although the tendency has everywhere shown a rapid increase in population throughout the Outer Ring, yet certain favoured areas have enjoyed a greater or more rapid increase than others, also such places have not necessarily maintained the same rapidity of growth through more than one intercensal period. No doubt such fluctuations are primarily brought about by the new and improved lines of communication which are constantly being introduced and which encourage rather than arrest the restless habits of modern society, which is constantly demanding a change of residence. It is found that an attractive spot in easy communication with the metropolis will rapidly develop, that 10 years is about the limit of its first period of prosperity, and that the tendency is for newer and more attractive developments to compete seriously after 10 years' growth.

The map which is published and which shows the distribution of increase and decrease in the density of the population between 1901 and 1911, indicates at a glance the position of those areas where development has lately been accelerated. Most noticeable amongst these areas are the districts of Hanwell, Ealing, Acton, and Willesden in the West, along the Balham Road from Lambeth to Tooting in the South, about East Ham and Ilford in the East, and around Tottenham in the North. It is interesting to note in connection with this that the western districts of Hanwell, Ealing, and Acton are those which have received the greatest benefit from the Great Central Electric Railway; the Balham and

Lambeth districts from the City and South London Electric Railway; East Ham from the extension of the Metropolitan Electrified System; and that the workmen's fares on the North London Railway, which passes through Tottenham in the North, are the cheapest in the metropolis, being but $\cdot 17$ of a 1d. per mile. That such circumstances intimately connected with matters of improved communication should account for the rapid growth of the population in these districts is more than significant; each of these particular places enjoys a service of trains of but a few minutes' interval.

It is pointed out in the report that the effect of migration brought about by the electric tramway system is not felt beyond a six mile radius, and that along many of the routes the passengers carried on the trams have been largely abstracted from the less convenient railway systems. The same results have happened, though in a less noticeable way, as regards the motor omnibus service.

The report gives a very interesting account of the development of the electric railways, the tramways, the motor omnibuses, and the taxi-cabs. It also points out that great improvements in our steam railways and in the terminal stations have recently been carried out. Stations have been enlarged, systems amalgamated, and cheaper fares introduced; resulting in an increase in the number of passengers carried.

In connection with the tramways it points out that the time has arrived when tram lines have been laid down along all arterial roads which are sufficiently wide to receive them, and that further extensions are not likely to be made on a scale of any magnitude owing to the enormous expense which would necessarily have to be incurred in street widening. It speaks very encouragingly of the present condition of the motor omnibus service, which, owing to recent improvements in construction and economies in working, are now the best paying of the different passenger service systems. Their superiority over the tram lies, in their ability to change their route, in their fitness for running over narrow streets in outlying districts, in their flexibility, and in the fact that they offer less obstruction than the trams in the crowded thoroughfares of central districts.

The report directs attention to the great increase which has taken place during the last 10 years in the transport and delivery of goods by road. It points out that whereas 10 years ago this daily delivery of goods was practically limited to a radius of 10 miles, this radius, owing to the introduction of self-propelled vehicles of all kinds, has now been extended to 30 miles. Not only are light articles delivered in this way from the central stores, but also post-office parcels, furniture, market produce, and building materials. It points out that whereas some few years ago the

self-propelled delivery van was only utilised by the largest business firms, this mode of delivery has now been extended in a very general way. In connection with the post-office, we are informed that parcels are conveyed by road to places so far distant as Birmingham 109 miles, Bristol 120 miles, Portsmouth 84 miles, Ipswich 87 miles, Leicester, Dover, and Eastbourne. Even allowing for the reduction in the surface traffic which must be attributed to the inception of the tubes, to the more rapid movement of motor traffic, and to the loss of population in the central districts, the tendency of which is to reduce congestion; still, the introduction of the trams, the increase in the population of the Outer Ring, the popularity of the motor omnibus service, and the tendency to deliver goods by road rather than by rail, have together increased and not diminished the congestion of the main thoroughfares. A map is published which shows at a glance their comparative congestion. The calculations upon which these graphic statistics are based have been very carefully made. The different kinds of conveyances have been separated into trade vehicles and passenger vehicles, and the many types of each have been reduced to units of congestion, the motor carriage being counted as one unit, the horse cab as two, the motor omnibus as three, the horse omnibus five, and so on up to the two-horse slow vehicle and the tram, which are computed at 10. In these calculations size, speed, and flexibility are taken into consideration. Speaking of improvements to thoroughfares, the report directs attention to the obstruction caused by central lamp standards and trolley poles, also lavatories, shelters and refuges, all of which resist that flexibility which is so necessary in thoroughfares congested with traffic proceeding at variable rates. Statistics show that there was a universal increase in the volume of road traffic during the year 1910-1911. The largest increase appears to have occurred in London Road, Streatham, where it has been 9·6 units per minute, in Holland Park Avenue, where it has been 8·3, in the Uxbridge Road where it has been 5·4, in King's Street West where it has been 5·3, in Lower Road, Richmond, where it has been 5·0, and in Canning Town Bridge where it has been 4·5. From the map that is published showing traffic densities, it is interesting to note that in the North the most important traffic routes are those passing through Chipping Barnet and Enfield, at which points the congestion is 11·5 and 10 units per minute respectively. Out West the roads through Hanwell and Hounslow take 11·6 and 11·3 units respectively at these places. In the South the road through Croydon at about the same distance from the centre as the above recited roads takes practically one-third of the southern traffic, 17·8 units per minute, and in the East traffic rapidly diminishes after it leaves Ilford and Barking, its density being only 3·1 at Chadwell Heath. It is also of interest to note

that in the East trade vehicles exceed passenger vehicles in volume, whilst in the South and North-west they are equalised, but in the West the proportion is reversed.

The recommendations laid down for widths of roads are important, and the following standards are suggested :—

	Feet
Main arterial roads not less than	100
First-class county roads, either radiating or connecting places of importance	75 to 100
Second-class county roads	50 to 75
First-class district roads, connecting villages or forming branches of main or county roads	35 to 50
Second-class district roads, mostly country lanes	25 to 35

It is considered reasonable to allow a less width where bridges occur, but a greater width is necessary where planting strips, avenues, and monuments are projected.

The report groups the existing arterial roads into six divisions and recommends improvements and additions. We reproduce a map which shows these roads and the six divisions which they would serve respectively. This map also shows the proposed deviations and additional roads which are recommended. An important new route is the North circular road which terminates at a new Eastern avenue from Bethnal Green to Romford. It would appear that this North circular road should be continued through East Ham to the Woolwich Ferry. Certainly there is need for improvement here, and if so continued it would connect up the South circular road. The new Cambridge Road would be a great convenience to northern traffic, and the Western Avenue would open up much undeveloped land about Acton, Hanwell, Greenford, and North Holt. Another projected road from Chiswick to Chertsey would bring into more direct communication desirable but inaccessible land about the Upper Thames Valley. It is interesting to note that by-pass roads are suggested around almost every thickly populated suburb through which a main arterial road at present passes. The increase in goods traffic and in rapid passenger traffic through outlying towns, the narrowness of the streets in most of the suburban centres, and the value of the property which alines these streets make these by-pass roads an indispensable system in the development of the main traffic roads of the future. By-pass roads around places like Sutton and Croydon are particularly desirable.

The report also publishes an excellent map showing the existing and authorised electric railways. Amongst those authorised and yet to be constructed, that from Wimbledon to Sutton is of particular interest in

connection with developments under the Town Planning Act. It opens up a beautiful park-like stretch of country, planted with fine trees, and dotted with large but unfortunately obsolete houses. The interjection of this new railway will under the Town Planning Act afford opportunities, never before possible, of laying out suburbs on the most approved modern lines. The Hampstead and Charing Cross Electric Railway, which at present terminates at Golder's Green, is to be extended to Watford, and the London and North-western Line, which at present runs out to Watford is to be electrified as a return loop, and will open up the Wembley and Wealstone districts.

Perhaps one of the most interesting developments in connection with suburban railways is the rapidity with which steam trains are being electrified. So far the most important improvement of this kind has been the electrification of the South London line between Victoria and London Bridge. It was opened so recently as December 1st, 1909. The installation of this electric service was immediately followed by a great increase in the passenger traffic on this line, an increase which has been continually maintained. So well satisfied were the Company that they extended the system over an outer loop from Battersea to Selhurst around Balham, Norwood, and the Crystal Palace. This new loop was opened on March 12th, 1911; other sections are in progress. The great advantage of the electrified train is the reduced time in which it can be stopped and re-started. Whereas the average rate under steam on the London Bridge and Victoria Line was 14 miles per hour, it is now 22 miles an hour, and the system adopted seems highly satisfactory.

The East London railway will also, very shortly, be electrified, and following that the London, Tilbury, and Southend line, and no doubt others will follow in due course. The serious competition set up between the tramways and the railways, which was responsible for a direct diminution in the number of passengers carried by the latter system, has after 10 years of decline, ceased; and with the electrification of the trains it is possible that a reversion of the suburban traffic from tram to train may very shortly be seen.

The report publishes endless data and statistics on the working of the suburban trains and trams. Whilst it is impossible to do more than refer to a few of the points raised, it would be an omission not to refer to such as are of particular interest.

Up to the 31st December, 1910, London possessed 119 miles of electrified railways constructed at a cost of £57,000,000, and whilst 377,000,000 passengers are annually carried, the number of persons killed, including railway servants, during the year 1910, in every way, was less than 40.

In connection with the trams it is estimated that by December

31st London will possess 349 miles of electric tram routes. Workmen's fares on the railway vary from ·17d. on the North London line to ·30d. on the London and South-Western, and on the tube railways from ·16d. on the Great Central to ·64d. on the Waterloo and City. The speed of the tube and underground railways varies from 28 miles per hour on the Waterloo and City to 14 miles per hour on the City and South London and the Metropolitan and District Inner Circle; and on the surface railways it varies from 30 miles an hour on the Great Central to 22 on the London Bridge and Victoria Electric, and to 15 miles an hour on Suburban trains coming into Fenchurch Street station.

In an ordinary week-day 8,427 trains come into London from all directions. The horse-'bus routes have diminished since 1900 from 779 miles to 175, and the motor-'bus routes have increased from 8 to 319 miles. The number of routes, both horse-'bus and motor, has been reduced from 159 in 1909 to 83 in 1911. In 1903 there were 278 horse-'buses running between Tottenham Court Road and the Bank. In 1911 the number was reduced to 46, and 184 motor-'buses were added. The comparative speeds of horse and motor-'buses is 5·9 to 7·1.

Before concluding our review of this very exhaustive report, which lays bare facts relating to London traffic problems and the spread of her population in a way hitherto unobtainable, it were well to pause for a moment and consider the panoramic vision of a future which is therein revealed. Whilst scrupulously exact in the information which it imparts, at the same time the report paints a picture of the application of mechanical invention to systems of locomotion so striking, and at the same time so real, as to convince us that even to-day we are only on the verge of an entire revolution in the distribution and movements of urban populations. What are the facts? Almost during the last intercensal period the taxi-cab, sure, swift, and cheap, has effected a more intimate association between the different business centres, places of amusement, and other areas frequented by the wealthy classes. The radius of convenient intercourse has been increased twofold; or to put it in another way, the available area for the inconsequent movements of this class has been increased four-fold. The motor-'bus, at first unwieldy, unwholesome, noisy, nerve wrecking, and unreliable, has been so perfected that the middle and lower class are now enabled to travel in comfort in almost any direction over distances at least one-third greater than was possible in the days of the horse-'bus, at the same cost and in the same time. A network of electric tramways has been spread over a radius of eight miles from the centre, so economical in their working that even the poorest of the poor may by taking advantage of this new system of locomotion now reside at from three to six miles from their work, whereas previously they

were obliged to be huddled and herded together at the factory or workshop door.

Electric trains, as yet but pioneers in a great new system that is to be inaugurated, have proved so practical in their working that it is safe to predict that in a few years passengers at any place in the centre may be deposited amidst rural scenery in practically any direction in most cases in less than half an hour, and without, as before, needing to take tiresome journeys in jolting omnibuses or along crowded thoroughfares to terminal stations, before entering their suburban trains.

The application of the invention of self-propulsion to vehicular traffic of all kinds has given to our thoroughfares a new use. Apparently obsolete as part of a transport system when the network of steam railways spread over the land, their use is now once more to be revived.

In the preparation of Town Planning schemes it would seem that the promoters could not look too far ahead. The greatest factor in development will be found to be the electric trains. Roads will need to be standardised, not only to degrees of congestion, but also to degrees of service, and it must be recognised that interested in the construction, maintenance and use of main thoroughfares are users of at least three kinds—the local authorities, frontagers, and the general public at large.

It is clear that whilst such roads will serve but in a comparatively slight way the districts through which they pass, they will be of great service to London and places situated at a considerable distance therefrom, and it cannot be expected that a local authority will be able to bear the entire cost of such roads passing through their district any more than a building owner can be expected to bear the entire cost of the repair and maintenance of the main thoroughfare of a city on which his premises are situated and which is of service to all citizens generally; and if this applies to a well-populated suburb or town, its application is much more marked in the case of sparsely-populated districts where the benefits derived are confined to users coming from places at a great distance away.

The means whereby such roads are to be or may be constructed are fully set out by Mr. Abercrombie in his article already referred to, which sets out the progress in Town Planning now actually being made within the area which extends to the confines of the Outer Suburban Ring.

S. D. ADSHEAD.



PLAN SHOWING AUTHORITIES TAKING ACTION
LONDON

TOWN PLANNING IN GREATER LONDON

The Necessity for Co-operation

The scheme for the reform of London government which has lately been brought forward by the Local Government Board, and which may become the substance of a Bill, is not a day before its time. Rather, it is to be feared that by the time it passes in some form or other, it will be too late to effect many of the objects for which it will be designed. The reason for this statement is to be found in the "White Paper" which was last November laid on the table of the House of Commons, showing the progress of the Town Planning Act.

Dealing with the second part of the Act (the town planning part) this memorandum gives the names of a number of authorities who are in one stage or another of a Town Planning scheme*: they are divided into five groups according to degree of advancement. The first contains eight authorities representing those to whom authority to prepare schemes has been given by the Local Government Board; the second contains two authorities whose applications are at present before the Board†; the third contains 11 authorities who have issued the preliminary notices; the fourth contains 22 authorities who have practically decided to proceed with a scheme; finally, there is a fifth list containing the names of 28 local authorities among whom the question of preparing a scheme is under immediate consideration. Now, the important fact in relation to London is that out of these 71 local authorities which are in one stage or another of embarking on Town Planning schemes, no fewer than 27 are to be found within the London Metropolitan Police area; one of them, Ruislip-Northwood, is with Birmingham the pioneer scheme. The sketch plan reproduced on Plate 102 shows the position of these authorities, and the different stages at which they have arrived—and surely this plan gives food for reflection.

The Metropolitan Police area is roughly contained by a circle having a radius of 15 miles from a centre point at Charing Cross; it contains 82 local authorities with a total population of 7,252,963, of which 2,730,002 are outside the administrative county of London.

Although within the area are to be found districts which are still purely rural in character, such as Epsom Downs, there can be little doubt but that this imaginary circumference represents the real extent of Greater London—a new, cheaper, and quicker means of arriving at any

* See page 323 for this complete list.

† Authority has since been given to these two.

one of the districts—even those which appear at the moment most retired and sequestered, has the effect of transforming it into a teeming London suburb in a year or two. Perhaps one of the most striking examples of late years has been the result of the Tube at Golder's Green, and the consequent upspringing of the Hampstead Garden Suburb, and the bringing of the southern half of the Hendon and Finchley Urban District Councils into immediate building prospect; many other instances might be quoted to show that the whole of this vast area and each of these districts is at the mercy of the gigantic monster London, which is ready at any moment to thrust out one of its tentacles and grasp it, never to let go its hold again. There is no wonder that the Town Planning Act is being seized upon with more eagerness here than in any other part of the country. London is, in a true sense, a monster, which it needs every effort to protect oneself from—not to keep out altogether—that is impossible—but to curb and control in some sort of way.

The almost universal cry of the more progressive of these Greater London authorities, is a regret that the Act did not come five or 10 years earlier; the harm is in so many places irretrievably done, though fortunately much may still be preserved. But to return to the point at which we set out, just as the Town Planning Act comes too late to benefit many individual districts, so may a revised London government come too late for the full benefit of Greater London. For these Town Planning schemes, admirable in themselves, may be the very thing that will hamper the carrying out of the full scheme for the Greater City. If these local authorities depend on Central London, so almost equally does Central London depend on the surrounding districts—it can be either nourished or throttled by them. If Town Planning schemes are authorised and proceeded with by these 27 authorities, and possibly by a great many more of the 82 authorities which are included in the Metropolitan Police area, these schemes then have the same force as local Acts of Parliament, and though groups of neighbouring authorities will have probably consulted together, realising the entire futility of isolated schemes, there can be no likelihood under existing conditions of any general consideration of Greater London as a whole. Most important of all, the vast heart, conglomerate of the 29 metropolitan boroughs, the County of London, has no part in these Town Planning schemes. In fact, the second part of the Town Planning Act can hardly be said to affect the 75,000 acres of the London County Council, as there are comparatively few unbuilt-on areas suitable for treatment under it, except perhaps in the south-east, within its boundaries. Whenever a new Act of Parliament has come into existence for dealing with the built-up parts of towns, as the second part of the present Act deals with undeveloped land, by that time

when the centre is ready to remodel itself and cut through its new traffic routes, it will suddenly discover that it is surrounded by a ring of Town Planning schemes under the present Act, plotted and carried out with little reference to this Haussmannising of the centre. This appears to be a singular instance of topsy-turvydom, and is similar to the futile endeavours of a man inflicted with heart disease attempting to improve the colour of his body by a little local massage, while at the same time entirely neglecting to consult a physician and take steps to improve the centre of circulation.

Matters would be worse than they actually are, were it not for the Royal Commission on London traffic of 1905, and the reports of the Traffic Branch of the Board of Trade of which the data were published in 1908, and the recommendations for the improvement of London traffic in 1910 and 1911. All these reports treat of Greater London, and so have been able to consider the problem as a whole, and not as a series of piecemeal districts. Professor Adshead's article deals exhaustively with the admirable recommendations of these reports, and fortunately the local authorities who are contemplating Town Planning schemes are taking into consideration the suggested main roads which happen to cross their districts. But here the question arises, Who is to pay for these new main roads, of at least 100ft. wide, both for land and road works? The Traffic Commission and the Traffic Branch of the Board of Trade have no money to carry out their recommendations; there are the Road Board under the Development and Road Improvement Funds Act of 1909, and the various county councils concerned, who, it is to be presumed will deal with separate sections of roads, each on their merit and as they happen to be brought to their notice.

At first, indeed, it appeared that there was going to be considerable difficulty owing to want of co-ordination between the Traffic Report and the Road Board and the Local Government Board, and some preliminary ideas for Town Planning schemes were got out without taking any considerable account of these wide radial roads. It is satisfactory to be able to report, however, that recently things appear to have been more conjointly considered, and in one case £30,000 has been voted by the Road Board, and in another they have arranged with the County Council to prepare plans of the proposed route and an estimate of the cost of constructing one of these proposed by-passes, with a view, it is to be supposed, of finding funds to carry it out.* But there still remain many instances which show that a more definitely local board, for dealing

* Since this was written the proposals for the Great West Road have been made public, see *Chronicle*, page 333.

with London, apart from the rest of the country, would be of great service.

But it is necessary to go further than this. The Traffic Report, admirable though it is, only deals with one aspect of this Greater London Town Planning; and of immense importance though the question of traffic be, it is not the sole consideration which should be taken comprehensively. Open spaces, parks and park-ways need a conjoint treatment—under the description of Finchley (page 270) is given some indication of what should be applied to the whole of Greater London. The zone scheme published by Mr. D. Barclay Niven, in the *Architectural Review* for January, 1910, suggesting a vast circular boulevard at a radius of 10 miles from Charing Cross, though partly a traffic suggestion, is equally a question of park-way provision and the linking up of open spaces. The somewhat similar scheme on which Mr. G. E. Pepler read a paper before the London Town Planning Conference (1910), and other suggestions that have been made from time to time, clearly demonstrate that outlying London is capable of many fine effects if they were considered broadly enough.

There can be no doubt again but that the question of Town Planning comes as a somewhat irritating extra to the ordinary routine work of the officers of the local authority, and when it is a matter for consultation with adjoining authorities and the preparation of schemes containing features of wider than merely local interest, this extra work is greatly added to.

In carrying out efficiently the work of a council, the chairman, the clerk, and the surveyor have usually about as much work as a man can conveniently cope with. On the top of this comes Town Planning, which, if the chairman and officers of the council are enthusiasts, cannot fail to strike them as an absolute necessity, which their predecessors of a few years ago were, happily for themselves, though unhappily for the community, entirely free from. It must be taken up as a kind of hobby in their spare time; the chairman, the clerk, and the surveyor perhaps spend hours of their leisure tramping over the district, giving up their Saturday afternoons, working late, and all this before any of the actual expense incurred by the scheme begins. In the first flush of enthusiasm for a new Act and new and beneficial powers, this extra work is probably given freely and will hardly, we feel sure, be ever adequately realised by the community at large. Of course the natural suggestion is that expert advice should be sought, or a new assistant trained in the intricate subject engaged, or a new post created—but this means extra cost and burden on the ratepayers, and the public are not yet sufficiently alive to the value to themselves of this new method of town growth to be willing

to pay anything extra out of their pockets towards it. So we are brought back to the often-repeated statement that the Act is in front of its time—it has not grown out of a public demand, but is an educative Act, which requires not only administering, but its objects popularising. To suggest that the Act should not have been passed until the public demanded it, would have meant waiting for years, while every day the work of bad town growth was proceeding. It was, in fact, imperative to do something, and it now remains for all those who have the power to educate the public and create that demand for Town Planning which will smooth away many of those difficulties preliminary to the application of the Act. First and foremost, it will be realised that it is necessary to spend a little money now in order to save the community much in the future, and to secure the health of the nation, which politicians of all parties are at length beginning to realise is the first duty to be undertaken. The importance of a public interest in Town Planning, as great as the public interest in hygiene, is evident, and it is to be hoped that the Crystal Palace scheme which is at present in hand will provide the means of educating the public of Greater London and interesting them in the subject by means of exhibitions, a permanent museum, lectures, discussions, and literature.

If the initiation of a Town Planning scheme in a district entails this heavy non-routine work, which of itself is enough to deter all but the most enthusiastic from embarking upon it, and to induce the spirit of quietism, letting things muddle along as they have done in the past, how much more inconvenient is the holding of joint conferences with other local authorities? The very fixing of a day and time at which half-a-dozen local authorities can meet together is a laborious business, and then the frequent jealousies and differences between neighbours even though they set out to meet with the best intentions in the world!

From the foregoing remarks it may be realised how important it is that some central authority should be constituted for Greater London which might not only be able to obtain funds in order to carry out the recommendations of the Traffic Board, but also should study the whole of the area from a Town Planning point of view, suggesting open spaces and reservations, their linking up and the creation of a vast park system, making use perhaps, of Mr. Niven's Ring Road, and leaving the existing local authorities to initiate the actual Town Planning schemes for their areas, incorporating the general features and dealing more particularly with the lesser roads and the smaller open spaces and the character of the buildings. This central or conjoint Town Planning authority would also relieve the officers of individual authorities of much of the additional worry entailed by the difficulties of matters of more than purely local interest. The very fact that the suggested new main roads in the 1910

and 1911 Traffic Reports are, as pointed out by Professor Adshead in his article, almost entirely different, must cause considerable confusion, without any definite pronouncement that the later recommendations are entirely to supersede the earlier.

Turning to the actual Town Planning schemes which are being promoted, the following is the list, and their position will be found on Plate 102.

London Suburban Districts Town Planning Schemes

AUTHORITY GIVEN.

Ruislip-Northwood Urban District Council.
Hanwell Urban District Council.

PRELIMINARY NOTICES.

Finchley Urban District Council.
Twickenham Urban District Council.
Willesden Urban District Council.

CONSIDERATION PRACTICALLY EQUIVALENT TO DECISION TO PROCEED WITH SCHEME,

Acton Urban District Council.
Barnes Urban District Council.
Beckenham Urban District Council.
Croydon Rural District Council.
Greenford Urban District Council.
Hayes Urban District Council.
Maldens and Coombe Urban District Council.
Merton Urban District Council.
Southall-Norwood Urban District Council.
Surbiton Urban District Council.
Walthamstow Urban District Council.

QUESTION OF PREPARING SCHEME UNDER CONSIDERATION.

Bushey Urban District Council.
Carshalton Urban District Council.
Croydon Corporation.
Enfield Urban District Council.
Epsom Urban District Council.
Esher and the Dittons Urban District Council.
Hendon U.D.C.
Richmond (Surrey) Corporation.
Southgate Urban District Council.
Sutton (Surrey) Urban District Council.
Wembley Urban District Council.

HANWELL URBAN DISTRICT COUNCIL, PROPOSED TOWN PLANNING SCHEME.



AREA OF TOWN PLANNING SCHEME, SHADED
HANWELL

It is naturally not possible to give full information about those districts which have not yet got out the preliminary notices, but the following notes on some of these schemes may prove of interest to others who are still contemplating taking action.

As will be seen from Plate 102, two main groups of authorities are formed, which together with the three riverside districts of Richmond (municipal borough), Twickenham, and Barnes, practically enclose the western half of the county of London; Finchley, Hendon, Willesden, Acton, Barnes, Maldens, Croydon (R.), Croydon (C.B.), and Beckenham, these form an almost continuous half circle of frontier; and although the actual area of the Town Planning schemes in many of the districts is not yet determined, it may be said with a fair degree of certainty that their fronting parts are either already fully developed, as in the case of Willesden, Chiswick, Wimbledon, and Penge, or they are to be included in Town Planning schemes. Half of the ring round the county of London will therefore be completed in the near future.

In most cases it appears that there is a strong inclination to follow the admirable example set by Ruislip-Northwood, and to include practically the whole of the unbuilt-on land of the districts in the Town Planning scheme; as has already been said, all the land within the Metropolitan Police area may be said to come within the definition of "land likely to be used for building purposes."

The Urban District of Ruislip-Northwood

As the scheme of this district, together with the two schemes promoted by the Birmingham Corporation, is one of the pioneers for the whole country, and thus has been already described, there is no need to enlarge further upon it. It will be perhaps sufficient to point out that this district is one of the outer fringe of Greater London and of a very rural character. The area is 5,906 acres, and it will be remembered that a large portion of this, situated in the centre, is being developed on garden suburb lines by the Ruislip Manor Estate Company, according to a plan by Messrs. A. and J. Soutar. A small piece of the rural district of Watford has been included in this scheme.

We understand that at present the provisions of the scheme are being prepared, and when these have been approved and published, another important stage in the procedure will have been passed.

The Urban District of Hanwell

Hanwell, situated immediately west of the municipal borough of Ealing, is an urban district of 1,067 acres, with a population (1911) of 19,131; although one of the smaller districts as regards area, Hanwell

shows the remarkable increase of 8,693 during the past 10 years. It is divided into two parts by the Great Western Railway, the southern being pretty well developed; it is through this part that one of the main radial highways passes—the road to Oxford. In the northern part of the district the area proposed to be developed is situated; it is about 200 acres in extent, and is bounded on two sides by the river Brent.

It will be seen from the plan reproduced on Plate 103 that this part of the district is divided by Greenford Avenue, running north and south; on the eastern side of it are situated the Central London District Schools, and an area which is at present in course of rapid development on the site of what was formerly Hanwell Park. It is this latter area which provides the object lesson, which is rarely far to seek; this once charming park is being entirely covered with rows of houses, and none of the natural features have been retained; although a branch of the Great Western Railway at right angles to the other line practically prevents through communication with Ealing, the regular by-law roads have been constructed at a distance of about 200 feet apart (see Drayton Road, Cowper Road, Shakespeare Road, and Milton Road, on Plate 103), providing a very typical example of needlessly wasteful estate development.

It is to prevent a similar misfortune overtaking the rest of the undeveloped part of the district that a Town Planning scheme is being applied for. In the southern part of the area, land already developed with large houses and gardens has been included. This is very necessary, as already one of these portions has been bought with the object of redevelopment with rows of houses, and the trees and general attractiveness of this piece is quite rightly recognised as belonging to the amenities of the district at large, even though the land is held in private hands; furthermore, it encloses three sides of a recreation ground of some 20 acres extent, which would be very materially affected by the destruction of these trees. The remainder of the land included is as yet entirely undeveloped; the property belonging to the Elthorne Heights Estate has not been included.

It will be seen, therefore, that though this scheme is not a large one, and does not involve any main London traffic communication, it yet is a typical instance of what the Town Planning Act may be able to do for the preservation of the amenities of a district, and for the relaxation of the By-laws. It is also intended to provide better communication with the urban district of Greenford, across the Brent river.

The Urban District of Finchley

Finchley, as already mentioned, is one of the most patent examples of the attendance of London suburban growth on ready means of access.

The northern part of the district, that furthest away from the metropolis, has been developed first, owing to the presence of two branch lines of the Great Northern Railway. The southern part, which actually marches for a short distance upon the L.C.C. boundary, is practically undeveloped, except for a few large houses on an avenue on the eastern side, and it is this beautiful stretch of country, some 1,000 acres in extent, now within the sphere of activity from Golder's Green station, which it is intended to town-plan. It is of further interest to note that just over the Hendon boundary adjoining this area, is the Hampstead Garden Suburb (which is about to extend over into Finchley) and the north end of Hampstead Heath. The area is traversed by the road from Golder's Green station, which is one of the main radial roads out of London; this, we understand, is to be made at least 100 feet wide, and to be generously tree-planted. It is probable that all types of property will be required under this scheme, and it offers one of the best opportunities for skilful intermingling and separating (to mutual advantage) of classes. The owners are comparatively few in number, and no serious difficulties of an obstructive nature are feared; a large part of the land is the property of the Charity Commissioners. We understand that the Council are in communication with neighbouring local authorities with a view to co-operating for purpose of local communication.

With regard to main traffic routes, a section of the new "North Circular Road" is shown on the plan of the Report of the Traffic Board, crossing the extreme western corner of this area,* but we understand that a modification of the suggested route is under consideration, and it is probable that it will not pass through the area of this scheme.

As illustrating what has been said about the want of co-ordination between Commissions of Enquiry and Acts of Parliament to provide funds to carry out recommendations, may be mentioned an incident which happened near to another short section of the "North Circular Road," in a part of the district not included in the scheme, which is undergoing rapid development. Close to the junction of the Great North Road and the Golder's Green Road (both recommended to be 100 feet roads) is shown the North Circular Road crossing them (see Plate 101), and it is therefore sufficiently obvious that in this triangle of three great roads there would be an immense volume of traffic. The Council had submitted to them plans for some new buildings to be erected on one of the roads at this intersection; the frontage was set out so as to leave no more than the normal 45ft. road. The Council thereupon

* See plan reproduced on plate 101 from the Report of the London Traffic Branch of the Board of Trade.

communicated with the Road Board to know whether they could obtain a grant under the Development and Road Funds Improvement Act to enable them to have the buildings set back. What was therefore their surprise to find that the very necessity for this widening was not taken for granted—the onus of proving it was rather shifted on to the shoulders of the local Council, though it was entirely an affair of Greater London. The buildings will probably be erected on the frontages, and when the London Traffic Report's recommendations are supplied with funds to carry them out, they will have to be demolished and a heavy bill for compensation met.

There is a considerable amount of Town Planning activity going on in the district outside this actual scheme under the Act. There are two estates, the Finchley, and the Brent Garden Suburbs, which are being developed on modern lines; the Council also have a scheme which they are gradually carrying out, of making a riverside park-way along the banks of the Dollis Brook. Already some 30 areas have been acquired, and the two above-mentioned estates have generously given up their frontages along the brook; when completed, this park-way will make a through connection to the open country round Totteridge in the Barnet Rural District, and thus by means of the Finchley Town Planning scheme, Hampstead Garden Suburb, Hampstead Heath, and Parliament Hill, insert a continuous wedge of green into London; a connection to Primrose Hill and Regent's Park would have thrust it into its very heart. It may be pointed out in passing that this continuous open space and "open building" planning is no less an affair of London at large than it is of Finchley, and if it were not for the action of a progressive and active council, the opportunity would be lost. We wonder how many other similar "wedges" might be preserved, if open spaces as well as highways were considered from the point of view of Greater London.

On the northern side of the Great Northern Railway are situated three open areas—the St. Pancras and Islington cemeteries, and a sewage farm of 90 acres. It is probable that the London County Council may take over the sewage of the district, in which case the latter area, which is well wooded, will be available for an open space; the Council intend, and are already taking steps in the direction, to connect this future open space by means of a broad avenue with their Town Planning scheme, thus adding another link to their park system.

It will thus be seen how thoroughly the subject of Town Planning is being studied in relation to this district, and we have only to add the wise and generous action of the Chairman of the Town Planning Sub-



The Boundary of the U. D. of Twickenham is indicated by a black line and the centre of the river bed
Area of Town Planning Scheme shaded

TWICKENHAM

committee (Mr. H. F. Nicholls), in purchasing the 30 acres along the Dollis Brook, which was threatened with jerry building, and handing them on to the Council at the same gain which he paid for them.

The Urban District of Twickenham

The Town Planning scheme of Twickenham is one of the most important from the point of view of the general public, and the main object of it is the preservation of the stretch of Thames on both sides, from a short distance north of Teddington Lock to the beginning of the Richmond area, and on the west bank, facing the town of Richmond, as far as the railway bridge.

The area is practically divided in two by the built-up part of Twickenham ; the riverside section is already developed, but is included for the purpose of preserving its beauties ; the other section on the north is chiefly arable and pasture lands likely to be developed in the near future. The total area of the whole scheme is about 1,880 acres, and of this about 360 are outside the urban district of Twickenham ; on the riverside section a portion of the urban district of Ham is included in order to take in both sides of the Thames ; on the other section, part of the Heston and Isleworth urban district is included in order to bring the area up to the line of Whitton Dean and Magden Lane, the boundary line running through fields.

By a reference to the plan reproduced on Plate 101, it will be seen that the proposed new high road to Chertsey is shown passing through the northern area. This road is referred to on page 333, and up to the present it is not quite certain whether it will actually pass through this district as suggested by the Traffic report.

The feature of the scheme is undoubtedly the stretch of the Thames, and when it is realised that Marble Hill, Ham House, Ham Fields, Orleans House, Strawberry Hill, and Twickenham Green are involved, it will be admitted that this is an affair not merely of Twickenham, or London, but of England at large, and if the Town Planning Act is the means of preserving permanently this beauty, it will have earned the gratitude of posterity.

Acton, Barnes, Beckenham, Croydon Rural, Hayes, Southall, Norwood, and Surbiton

Particulars as to the schemes of the above Councils are not as yet available, but conferences are being arranged between groups of them, and in many cases it is the intention to include the whole of the unbuilt-on areas in the scheme. The contiguity of many of these districts is fortunate, as it will produce long continuous stretches of land which

are only to be developed under Town Planning conditions, and there is, therefore, not so much possibility of the work of one council being nullified by the no-work of another.

In connection with the Croydon rural district, may be pointed out a feature which should be carefully considered—that is to say, the new buildings which are erected facing a common. A bare open expanse of country, such as many of the commons round London are, possesses a very subtle and delicate charm ; it relies for its appeal on its uninterrupted openness and the effects of sky and air ; it has no arresting features, and therefore can most easily be spoiled. This is what has happened on Mitcham Common. On the north side a row of dismal houses has recently been erected ; at once its beauty is gone, the common in front of the houses becomes a blank open space ; it is only necessary to surround the whole with similar rows and it would look squalid and dreary.

It should, accordingly, be most carefully borne in mind that the frontages on to these commons are not an individual affair ; it is not necessary to reserve them exclusively for large houses—though this has been done at the Hampstead Garden Suburb, and from the landowners' point of view it would appear the wisest policy—but a strict control should be exercised, and if small houses are erected, they should be properly spaced and so treated architecturally that they do not destroy the amenities of the neighbourhood. Although architectural control may not be included in the provision of Town Planning schemes, even the limiting of the number of houses would have some likelihood of preventing a spoliation such as this of Mitcham Common.

The Urban District of Greenford

The urban district of Greenford consists of three parishes—Greenford, Perivale, and Twyford ; the latter is a small isolated area situated between Ealing, Acton, Wembley, and Willesden. It is largely of a rural nature, the present population being only 1,064 to 3,041 acres, but its neighbours, Hanwell, Ealing, and Wembley, owing to better railway communication, have grown more rapidly during the last ten years. There is every prospect, however, that Greenford also will shortly develop in view of two new connections with the metropolis—the Great Western main line to Birmingham, and the Metropolitan District line to Uxbridge. It has therefore been wisely decided to include the whole of the two parishes of Greenford and Perivale in a Town Planning scheme, comprising over 2,500 acres and including the picturesque village of Greenford. For some distance the area included marches on the western boundary of the Hanwell Town Planning scheme (see Plate 103), and it is satisfactory to be able to chronicle that conferences have been held with Southall-

Norwood, Hanwell, Ealing, and Wembley, so that it may be taken for granted that the general requirements of this eastern group of districts have been jointly considered. Through roads from one to the other are to be of a minimum width of 60 feet.

The Western Avenue suggested in the Traffic Report passes clean through the centre of the area and will very materially affect the planning of the whole scheme. It is too much to expect that the local authority will be able to afford a 100-feet wide road on this line.

The Grand Junction Canal passes through the district, and it is intended to encourage the erection of factories along its course, proper control being exercised over their position and the consequent development of workmen's dwellings. It is hoped to be able to limit the number of houses to 10 per acre over the whole area.

Two branches of the New River, which here flows underground, it is intended to treat as wide boulevards, somewhat after the manner of the Boulevard Richard Lenoir in Paris.

That development is imminent, and also that the proposed limitation of houses per acre will not delay it, may be inferred from the fact that a development company on garden city lines was filed in August, 1911, the Greenford Garden City, to develop 92 acres in the centre of the area. So that instead of a Town Planning scheme being undertaken in this instance in order to prevent undesirable development, it is in order to encourage and protect the very type of growth which business instinct feels to be the most suitable from its own point of view.

The Urban District of Maldens and Coombe

The Maldens and Coombe district consists of three parishes—Old and New Malden, and Coombe; these represent three distinct kinds of locality. Coombe is a well-wooded district of large houses, facing Richmond Park and practically in the hands of one landowner; Old Malden is a picturesque village situated at the opposite end of the district, near the Leatherhead and Epsom branch of the London and South-Western Railway. Between them and straddling on either side of the London and South-Western main line is New Malden, a middle-class suburb; the great increase of population for the whole district, which has nearly doubled its population during the last ten years, is practically due to the growth of this New Malden.

It is hoped that a Town Planning scheme will aid in preserving the two existing and dissimilar characteristics of Coombe and Old Malden, and will help to control the development of New Malden. For this

purpose it has been decided to include all the unbuilt-on land in the district, together with certain partially built-up areas, some 2,000 acres out of a total of 3,220.

The revised suggestions (1911) of the Traffic Branch of the Board of Trade show a suggested main road passing through the district, forming a by-pass to Portsmouth, in order to avoid the narrow street of Kingston. The route passes along the eastern boundary of Coombe and New Malden, following the Beverley Brook, and then meeting a new branch from Merton turns off sharp at right angles between Old and New Malden in the direction of Esher. By keeping along the boundary of Coombe, the fast traffic and dust of this new road would not annoy this residential district, and where it passes through between the Maldens it would have the effect of opening up a new area, so that there would probably be little opposition to the construction of a 100ft. roadway, though little contribution towards it can be expected from the local authority. We understand that the Road Board is at present obtaining estimates, through the County Council, for the construction of this by-pass.

The Urban District of Merton

The district of Merton, which is contiguous to the Maldens and Coombe, has had a remarkable growth ; it has nearly trebled its population during the last 10 years. Though little more than half the area of the Maldens and Coombe, it has more than twice the population ; it is still, however, largely unbuilt on. At present the district is poorly supplied with train service, the actual station, Merton Abbey, being on a branch line, with indifferent service from Wimbledon to Croydon ; but the projected and authorised electric railway from Wimbledon to Sutton will pass clean through the area, and will have the effect of opening it up to instant development.

The area which it is proposed to include in the scheme comprises the greater part of the unbuilt-on land in the district, together with the parish of Morden, which is in the rural district of Croydon. This latter portion it was felt could be better dealt with if it were absorbed into the Merton district, and an application has already been made to this end. Morden Park, which is surrounded by a fine belt of trees, might then be taken into consideration as a public park, or, at any rate, some of its features retained.

As mentioned in connection with the Maldens and Coombe scheme, the suggested by-pass to Portsmouth passes through the district. It will thus be seen that the actual planning of the area is held up by three uncertainties—the direction of the Wimbledon to Sutton electric railway,

the proper absorption of the parish of Morden, and the recommended by-pass to Portsmouth.

Merton is an example of a small district in which road communication is in a chaotic condition, and which would remain so to a large extent if it were developed piecemeal after the ordinary manner. One part of the area, however, is in contrast to this general character, as it was laid out some 15 years ago under the name of the Merton Park Estate Company. This type of development, which was only possible before under a large land ownership, may now be applied for the good of the community at large over a group of small properties.

The Urban District of Walthamstow

The urban district of Walthamstow, with a population of 124,597, is one of the largest in the country; it is just eclipsed in numbers by its two neighbours, Tottenham and Leyton, but its area is greater than either of them. Though its rate of increase per cent. during the last 10 years (31 per cent.) is much less than it was for the preceding decade (105·3 per cent.), it is still very high, and it would hardly be a rash estimate to allow 15 years for the whole district to be fully developed. At present, out of 4,342 acres, 1,534 acres are either undeveloped or in course of development; it is proposed to include the whole of them in the Town Planning scheme.

The following is an analysis of the land of the district:—

Developed land	..	..	..	1,744·74	acres.
Reservoirs	..	..	..	361·00	„
Railways	..	..	..	110·00	„
Schools	..	..	..	34·00	„
Allotments	..	..	..	57·82	„
Epping Forest	..	..	..	359·82	„
Other open spaces	..	..	..	41·28	„
Marsh	..	..	..	100·04	„
Undeveloped land	..		1,041·46		
In course of development			322·03		
Sewage farms	..		170·64		
				1,534·13	„
Total	..	..		4,342·84	„

The area included is very interwoven with the existing developed land, the most continuous extent being in the north, so that no very comprehensive scheme can be indulged in. The district is fairly well served with north and south and east and west roads, but there are no

diagonals, and it is hoped to be able to provide some of these ; 20 years ago it would have been a comparatively easy task.

One suggested improved communication is Billet Road, which runs clean across the north of the district, from Epping Forest in the east, and in the west practically stops short near the boundary. The advisability has been suggested to the Tottenham Urban District Council of connecting this road across the marsh with a bridge across the Great Eastern Railway at Park Station ; at this point three roads converge—Northumberland Park, Park Lane, and Landsdown Road, the latter leading direct into the tram route to the Alexandra Palace. Billet Road is being widened as occasion permits to 50ft., and if the suggested connection is carried out it will become a valuable cross-road, and will bring Epping Forest into close relation with Tottenham and Hornsey.

In the report of the Traffic Commission a section of the proposed North Circular Road is shown passing through the district to the south of Billet Road ; it crosses several of the small patches included in the scheme, and should be very carefully considered at the present moment if it is to be incorporated.

There are two main radials which pass through the district—(a) the road to Waltham Abbey through Chingford, (b) the Woodford New Road to Norwich through Epping Forest. The former road is very twisted and unfortunately built up along half of its length, but with external aid something might be done to widen and straighten it. Woodford New Road is yet more important ; if it were adequately widened it would serve to direct a great deal of through traffic from the more populous routes, and its beauty would ensure its popularity. The Council considers 80ft. a minimum width that this road should have—we should rather suggest 100ft.—and it is a melancholy fact to have to chronicle that towards a recent widening of the carriageway to 34ft., the estimated cost of which was £3,346, the Road Board were only able to contribute £800, and the Essex County Council £1,432. The passing of this road through the northern portion of Epping Forest makes its widening a comparatively easy affair, but even the balance which is left over from the two contributions is too much for a comparatively poor district to spend in a widening which is to benefit Greater London rather than itself.

On January 22nd, a notice was served on the owners, lessees and occupiers of the land proposed to be included in the scheme, informing them that the Urban District Council of Walthamstow intend to apply to the Local Government Board for authority to prepare a Town Planning

scheme. A notice was at the same time served informing them that the Council desire their co-operation in promoting a scheme and inviting them to attend a conference to be held at the Town Hall, on Monday, February 26th, at 7-30 p.m.

Other Districts Considering the Question of Preparing a Scheme

The councils which are merely considering the embarking on a scheme have naturally not much to communicate. Two important boroughs are included in this list, Croydon and Richmond. The by-pass suggested by the London Traffic Report on the Brighton Road is shown near the boundary next the Croydon Rural District; the object of this by-pass is to save the quick traffic from passing through the narrow streets of Croydon, and the Road Board has offered to the Croydon Corporation £30,000 towards its construction. It is most unfortunate that in this particular case where assistance has been offered the local authority is by no means eager to accept it. There are several ways of looking at these main radial roads: the small undeveloped district regards them with indifference or mild approval, but is by no means willing to contribute towards their construction; the developed district, with large houses, frankly resents their coming—they will merely bring a whizz of dust and uproar through their quiet neighbourhood; again, the prosperous borough with a narrow high street along which one can only go at a foot pace, lined with hotels, motor garages, luncheon rooms, and shops—is indifferent to traffic overcrowding, and is rather pleased at the hindrance which is caused to the quick through traffic. Of course all three points of view are in reality of secondary importance—London itself is the first consideration, and the whole question can only be treated as part of a complete scheme and not as the affair of any particular locality. These latter may suffer in certain special instances, but the general good of the whole is to be studied first.

It is satisfactory to note in the southern group that several conferences led by Carshalton have taken place between the latter and Croydon Urban Borough, Croydon Rural District, Epsom Urban District, Epsom Rural District, and Sutton Urban District.

It is intended when a scheme is entered upon, to include all the unbuilt-on land in the Carshalton Urban District, which represents some 2,000 acres out of a total of 2,926. A garden suburb has also been projected on the site of the old Carshalton Park with an area of about 43 acres. It will thus be possible to preserve many of the fine old trees and also the interesting source of the River Wandle which is canalised and bordered with trees.

East Ham and the Port of London Scheme

Though not appearing on the "White Paper" as contemplating embarking on a Town Planning scheme no description of the activities of Greater London would be complete without mention of the proposed extension of the London docks in the borough of East Ham, and the consequent increase of population which will undoubtedly ensue and which should be provided for by scheduling some area under a Town Planning scheme. The obvious reason why as yet East Ham does not appear among the list of those authorities who are initiating schemes is because there is practically no undeveloped land suitable for a scheme in their district* except that which has been taken over by the Port of London for the purpose of docks. The new residential development can only take place outside the East Ham area, in the urban districts of Barking and Ilford. The population of the latter has already been nearly doubled during the past 10 years, and now stands at 78,205; Barking at present contains 31,302, and it will probably increase as rapidly as Ilford has done. Here then, is a manifest case, if these two authorities do not take action, for East Ham to embark on a Town Planning scheme outside its own area, for it is the industrial development that is taking place in it which will affect the other two.

In the meantime East Ham is occupied with problems of its own of no less importance. The utilisation of the tract next the river for docks, brings with it the danger of cutting off the remainder of the borough from the Thames; a series of swing bridges and rights of way across the docks being a highly inconvenient makeshift. There is already a small area of residential property on the river bank which would be practically cut off from the borough itself. Curiously, on this frontage there is a fragment belonging to the London County Council, part of Woolwich, and this raises the larger question of direct connection by tunnel with Woolwich itself on the south bank.

The connection of North and South London at this point is of vital importance. The London Traffic Report has no suggestion to offer. It shows (see Plate 101) the North Circular Road ending short at Wandstead at the point where it intersects the new Eastern Avenue before it crosses the River Roding. The South Circular Road is brought up to Woolwich itself. If a circular road is to be of complete use, it should be continuous, and were not the new dock scheme in hand, its line is sufficiently obvious on the north bank, for it would connect up from Wanstead

* There is the strip of low land lying between Beckton Road and the Northern Outfall Sewer, which is rightly stigmatised by the report of the Commission appointed by the Garden City Association as unsuitable for building upon.

along Forest Drive, Station Road, and the High Street, which cuts direct through the middle of East Ham, running north and south across the northern outfall sewer to the Albert Dock. At this point the tramway stops short, and it will probably have to be curtailed further in view of the dock extension. Mr. Pepler shows his circular road following this line and brought up to the river side. This is certainly theoretically the right line, but the only way in which it would be arrived at would be by means of a gigantic tunnel, starting some distance back from the northern outfall sewer and plunging under the docks; the difficulties of this tunnel would be further enhanced by the high ground on the Woolwich side. The alternative to this outlet from the High Street and North Circular Road would be to take a wider sweep outside East Ham and to the east of the River Roding on the line, perhaps of the road from Barking to Creekmouth. The tunnel would not need to start so far back and would have the Plumstead Marshes on the opposite side to rise up into. The difficulty here, of course, would be with the Royal Arsenal, but a cutting might be arranged and it is even possible that some of the Government services might be moved further out of London in the future, leaving these marshes available.

Another important feature is the provision of another radial road near the river, starting from Canning Town and relieving the Barking Road. At present there is Beckton Road leading up to the Beckton gas-works, and stopping short. If this could be carried clean through, so as to cross the River Roding at Creekmouth, it would afford a most valuable riverside outlet.

These are, of course, mere random suggestions, and the whole treatment depends on the scheme for the docks; but they are some indication of the wide view which should be taken in the matter. To provide adequate docks is not alone sufficient, the main lines of communication of London itself must be included in the scheme, a means of exit from the East End, and a connection with north and south.

Equally important, however, is the consideration of housing accommodation in conjunction with industrial development. Some general provision in this direction should form part of the Port of London's scheme, somewhat on the lines of what has been done in the new haven at Frankfort-on-the-Main. Fortunately, there is an energetic local society, the East London Garden Suburbs and Town Planning Association, affiliated to the Garden City Association, and this society may be trusted to keep an eye both on the traffic and the housing aspects of the great London development. Such independent private associations are very necessary in this country, for great bodies incorporated are very apt

to initiate huge schemes and treat them as though they existed in space without any thought of the innumerable ties and bonds with which they are connected to their surroundings. It is this comprehensive treatment which it is the object of the general Town Planning movement to encourage.

The Garden Cities and Town Planning Association, also, last year appointed a commission consisting of Messrs. H. Colin Allen, T. Alwyn Lloyd, and Harry S. Stewart, to enquire into this housing problem, and their report lays down some valuable principles and makes a suggestion for taking into consideration an area of about five miles by three, from Canning Town to Dagenham and from Ilford to the Thames. It is to be hoped that some use will be made of their recommendations, and it is satisfactory to know that this matter is being closely and keenly watched.

P. ABERCROMBIE.

ON THE INTERACTION BETWEEN DWELLINGS AND THEIR OCCUPANTS IN GERMANY AND IN ENGLAND

The results have been published of careful examinations of dwellings in this country, the United States, France, Germany, Belgium, Austria, Hungary, Holland, and Switzerland. All those of the reports which I have read show that in all these countries a large proportion of the people, both in towns and in the rural districts, are living under conditions which make it impossible for grown-up persons to maintain health and strength of body, mind, and character, and for children to gain health and strength of those three kinds.

The wrong conditions can be divided into two large classes :—

- (1) Those due to faults or defects in dwellings, their position or their surroundings, so serious that, though careful, steady, intelligent, healthy, well-paid occupants might for some time live tolerably healthy lives in the dwellings, they would be unable to bring up healthy children in them, and would soon have their own physical, mental, and moral condition lowered.
- (2) Those conditions which are due to the conduct of the occupants of dwellings, to their wilful misconduct, or to wrong action caused by ignorance or by poverty, due to low wages, illness, or some other kind of misfortune.

Dwellings and their occupants together can therefore be divided into four principal classes :—

- (1) Good dwellings which have good occupants.
- (2) Potentially good dwellings which have bad occupants.
- (3) Unwholesome dwellings which have good occupants who make the best of them.
- (4) Unwholesome dwellings which have bad occupants.

I believe that all persons who have carefully studied the life of our large towns know that so large a proportion of the dwellings and their occupants in those towns belong to the second and fourth of my four classes that it must be impossible to effect any very great reform in English housing, unless the closing of unwholesome dwellings and the adoption of measures for greatly increasing the number of potentially wholesome dwellings are accompanied, or preceded, by action on a large scale for giving our people more power and will to be good occupants of potentially wholesome dwellings.

The truth of this statement, and the nature of at least some of the necessary action, can, I think, be clearly shown by comparing the housing system in our large English towns with that of large German towns.

There are a large number of unwholesome dwellings in this country, but yet it is not an exaggeration to say that our English system consists chiefly of houses, each of the majority of which, if it were well placed in relation to other buildings, would be potentially a wholesome dwelling; while the greater number of those which are not actually wholesome are made unwholesome either by their wrong position, or by the conduct of their occupants, or by a combination of the two causes.

In Germany there are a large number of bad occupants of dwellings, yet the system of housing in German large towns may with equal truth be said to consist chiefly of large, tall houses containing many tenements nearly all made unwholesome by their structure and inhabited by persons of whom the majority are better fitted by education in schools and other kinds of training to be good tenants than are the majority of the urban English.

In German towns, as a rule, streets are made very wide—80ft., 100ft., and 120ft. are common widths for streets in which there is not much traffic, and the owners of building land through which a new street is made have to provide land for half the width of the street if the total width does not exceed 85ft. 3in. (26 metres), and to defray the cost of making half the width of the street, and to keep the street in order for not more than five years. As a house of two storeys for one family would have its rent raised to an unpayable height by the addition to interest on the value of the site and the cost of building, of interest on the value of the street land, and the cost of making and maintaining the street, builders in German towns are compelled to build tall houses containing many dwellings, so that the interest on the street-cost may be contributed to by many tenants. Very wide streets cannot be placed as near together as our narrower streets are. In a German town 200 metres is a usual distance to leave between two wide streets. Land is now so dear in German towns that builders cannot afford merely to build a single line of houses along each side of a street and to leave the land behind each row for gardens or yards; they cover as large a proportion of the area as the law allows them to cover with blocks of buildings containing tenements, the greater part of which are arranged round courts, from which they receive all their air and light. By-laws regulate the number of storeys and the proportion of each site which may be covered. Different numbers of storeys and different proportions of sites are allowed in different districts of the same town. Nowhere are more than six storeys allowed; in some districts five, in others four, three, two. So with

the proportion of the area which may be covered with building. In central districts where land is dear only a small proportion is reserved for courts. In some districts near the suburbs only detached or semi-detached buildings are allowed. Six-storeyed buildings covering as much of the area as possible pay best, and all builders desire to erect such buildings, and as house owners and land owners dominate German Town Councils, in most districts in Berlin and other large German towns such buildings are allowed and are now the usual type of house.

This large use of land has defeated the ostensible object of having houses containing many tenements, that of keeping down rents by distributing interest on the cost of the land over many rent-payers. Land costs from eight to ten times as much in a German town as in a similar position in an English town of corresponding population. In Berlin there are about 32,000 persons to the square kilometre; in London about 15,000. German building regulations are very strict, and require thick well-built walls and many fireproof staircases, and these conditions cause building to be very dear, and dear land and dear building cause rents to be very high, with the result that as wages are lower and food dearer, from the poorest class up to the middle class Germans in towns have to content themselves with far less house room than the corresponding classes in England occupy. In London, where rents are very high in some districts, and there is much poverty, some 300,000 live in dwellings of one room each. In Berlin, which is much smaller than London, in the year 1900 43 per cent. of all households occupied one-roomed dwellings; 70 per cent. of the households had not more than two rooms each; yet rent, as a rule, absorbed from one-fifth to one-fourth of the income of workpeople.

In every large German town a large proportion of the people are in dwellings of one or two rooms. Rents are so terribly high that a large proportion of the families who live in only one or two rooms have to take in lodgers. Professor Fuchs, of Tuebingen, who has given great attention to the housing question in both countries, said, in one of his addresses, that of about 6,000,000 houses in England 3,000,000 have five or more rooms, and in the large towns in Prussia four-fifths of all the dwellings do not contain more than three rooms each. A very important fact is, that while in England the commonest kind of workman's house costs so little to build that there are always a considerable number of persons who can afford to build one or more houses of the kind, and are willing to build them if there be a great want of houses, the large German house costs so much that very few people can afford to build it. As a result of this difference, there is very great difficulty in obtaining a sufficient supply of new houses in German towns. There is hardly a single large and grow-

ing German town in which there is not a house-famine, and German social reform papers constantly contain articles suggesting methods for enabling individuals and societies willing to build to obtain loans of money at low rates of interest.

That is the dark side of German housing, and it is an extremely dark side. I must speak later for a minute or two of some of its bad effects. The system has its bright side which deserves quite as much attention from English people as does the black side. As I have already said, nearly all streets in the modern parts of German towns are very wide, many of them are planted with trees—Coeln, *e.g.*, with about 430,000 inhabitants had in 1900 285 tree-planted streets, the length of which was $64\frac{1}{2}$ miles—and there are many small town gardens scattered through the towns. The tree-planted street and the small public town-garden are of very great importance as means not merely for promoting happiness and civilisation, but really for making civilisation and happiness possible. They enable the poorest parents to spend time happily with their children in the open air close to their dwellings. I know of no workman's dwelling in a German town from which some place cannot be reached in a few minutes where something beautiful, flowers or trees or fine buildings, can be seen, something which makes one glad to be alive, and where children can get, if not play, more exercise under their parents' eyes than can be obtained near workmen's houses in our towns. It is the object of enlightened Buergermeisters and Town Councils to compensate the poorer citizens for the smallness of their dwellings by placing tree-planted streets and small gardens in as many parts of the towns as possible.

Because of this public provision for family life and for simple happiness, there is much more family life and family happiness in German than in English towns. Moreover the tall houses which contain small dwellings have handsome, or at least imposing, exteriors, so that when the poorest workman goes out into the street there is nothing to make him feel that he is a member of an inferior class. In a modern German town there are no such districts, in which everything is mean and ugly, as the workmen's districts of all our large manufacturing towns.

I need say very little about our English system of providing dwellings for the mass of the people. We all know that our system mainly consists of long rows of small two-storeyed houses, each of which is intended for only one family, placed on each side of a street of about 36ft. in width, each house having a backyard opening into a narrow passage, the chief purpose of which is to enable excreta, ashes, and other waste to be removed from the houses. We know that property of this kind—with public-houses in large number intermingled with the dwelling-houses—fills large districts in all our large

towns, and that though there are some pleasant parks and some playgrounds not far from most of these poor and ugly districts, as the people have little or no knowledge of nature, and as town children do not know how to play social games, and there are no trained attendants in the playgrounds to teach them how to play, parks and playgrounds have no influence for good on the lives of a large proportion of the inhabitants of the districts in question. These things being so, and the air of our large towns being heavily charged with soot, we know with certainty that the physique of the greater part of the inhabitants must be very poor, and that even if the people were well trained for resisting the temptations created for them by their ugly, depressing surroundings, there must necessarily be a great deal of drunkenness and stupid betting and gambling in such districts.

Partly for other purposes, partly for the purpose of enabling ourselves to decide whether our people are as well trained as they might be for the difficult task of living full healthy lives in the districts which they must at present occupy, let us briefly compare the training received by the English town boy and youth with that received by the German town boy and town youth.

The German boy begins to go to the elementary school, if he is strong enough, when he has completed his sixth year. Most German towns have had school-doctors for much longer than our schools have had them, and all school-recruits are examined by school-doctors, and if they are not strong enough for the work and confinement involved in school-life, they are excluded from school for another year. Germany learnt from her defeat by Napoleon a century ago the importance of giving good physical training to all her boys and young men, and though political reasons caused her to cease for many years to give it, she began again to give it in 1842, and it has ever since formed an essential part of German education. All boys in elementary schools have long had to receive gymnastic training twice a week, each time for an hour; but as this has not been found to suffice to enable boys to resist the bad influence of town life, a third hour a week was made compulsory in the year 1910. But even this has not been found to be enough, and a vast society, which receives strong approval and support from the German Governments, has been formed for the purpose of training all German children to play organised games, and a law has been passed which gives towns and other communities the power to have one afternoon a week kept free from lessons for all school children and given to the compulsory playing of games. The members of the society do not share the delusion under which English Town Councils suffer, that all children are born with a knowledge of how to play games. They know that children must be taught how to

play, and encouraged to play, and they have trained an army of teachers—the number was 34,000 when I saw a report at least three years ago—to act as teachers and leaders of games on the play afternoon, each teacher receiving additional salary for this service. The experience of one town in Baden will show how strong an influence for good even a few hours of pleasant exercise taken regularly once a week can have on health. In Pforzheim, a manufacturing, smoky town of about 50,000 inhabitants, in Baden, absences from the elementary schools owing to illness were increasing regularly on an average of some years of about 10,000 a year although all the children had gymnastic training for two hours a week. Three years ago the weekly afternoon for games was adopted, and in the following year not only did the usual increase of 10,000 hours of illness not take place, but there was a reduction of 25,000 hours from the number of the previous year.

It is not only exercise that is relied on in German elementary schools for the improvement of health and habits. It is very difficult to keep children's clothes and bodies clean in the small over-crowded dwellings in German towns, and the air of German schools used to suffer as much as that of many of our schools still suffer from the filthiness of some of the scholars. For many years every new school in Germany, for which it has been possible to obtain a sufficient amount of water has been provided with a range of shower-baths, supplied with water of which the temperature can be anything between hot and cold, and every child has been encouraged, but not compelled, to take a shower bath once a week. The effect on the cleanliness and health of the children and on the air of the children has been very great, and the baths have had also a marked effect on the care taken by mothers of their children.

The mothers were ashamed to let dirty or ragged underclothing be seen by teachers and the children's comrades, and washed and darned more diligently, and then took more care of their children's outer garments. The influence of the school bath is felt by Germans in their later life. The workmen in nearly all trades which soil hands and clothes take a shower bath at the works and put on clean clothes before leaving for home. When the German boy on the completion of his 14th year leaves the elementary school, he is not allowed, if he lives in a large town, as the English boy, wherever he lives, is allowed, to begin at once to forget all that he has been taught at very heavy cost to all his fellow-countrymen, in the elementary school. Compulsory continuation schools are not yet found in all German towns, but there is only one large German town, Essen, which has not schools of the kind. The boy in the large town is compelled to attend one of these schools for six or eight hours a week from the beginning of his fifteenth year to the completion of his

seventeenth. Increasing care is taken to ensure that the hours of attendance are so chosen that the youths who attend the schools shall not be too much tired to profit by their lessons. In many places the schools must close not later than seven o'clock. Physical training forms part of the curriculum of many of the schools and lessons on good citizenship and the care of health. The gymnastic training given in the elementary school and in many continuation schools, causes many young Germans to become members of gymnastic associations, and to take enough systematic exercise to counteract the cramping, distorting influence of monotonous labour in their bread-winning work. Work in a gymnasium is not as good for maintaining health and strength and general activity as football, cricket, or hockey, but it is a great deal better than looking on at matches played by other people, and drinking and smoking at intervals of the looking on. In the year 1906, 8,157 gymnastic societies, with 850,000 members, belonged to one gymnastic union. After the years in which the continuation school is attended, for more than half of the whole number of young Germans who reach the age of twenty years there comes a period of service for two years in the army, a time of hard physical exercise, of life in the open air, of good plain feeding, a time of vigorous physical life, which, with the school physical training given in great measure for the purpose of preparing for it, in the opinion of most German doctors, alone enables German urban populations to withstand, as fully as they now do withstand, the bad influence of their unwholesomely constructed, overcrowded dwellings. Army-life promotes the health of young Germans not only by the exercise, open air life, and good feeding which it involves, but, too, by confirming the habits of cleanliness which the school shower-bath has given. It is one of the boasts of the German army that "it makes men wash behind their ears." Army-training of more than half the men has also a strong influence on German women. It makes men who have served desire neatness, orderliness in their wives and daughters, and it gives the women high ideals of physical vigour, good bearing, cleanliness and neatness of attire for their sons, as well as for their lovers and husbands.

About 54 per cent. of all German youths are found to be physically fit for military service. In some of the country districts the proportion of the physically fit is over 80 per cent. In Berlin, where it is lowest, in 1902 it was only 33 per cent., a proportion considered by Germans to be very terrible, but which is nearly four times as high as some English figures which I shall soon cite.

Another kind of training which has in one way a strong, good influence on German homes, though in other ways a very bad one, is the beer-garden. The beer-garden does a great deal of harm by promoting drink-

ing to a very injurious extent, and in promoting waste on alcohol of money which is urgently needed for other purposes, but it unquestionably enables hundreds of thousands of German parents to spend part of their leisure time very happily with their children in listening to good music and chatting together and with friends. And whatever creates or maintains bonds of affection and habit between parents and children tends strongly to improve homes. The German beer-garden does that; the English public-house does not.

I need say hardly more about the training of the English boy than I have said about our English system of housing, as its nature is well known to us all. The subject of physical training, on which all mental and moral training ought to be based, has always been played with by our Board of Education. The Board publishes admirable handbooks on physical training and gives admirable advice, but it does not ensure that all English children shall receive good physical training by insisting that time and place shall be provided for it, and in many schools little or no physical training of any value is given, though happily in other schools, where the teachers know its importance, very good training is given.

A great many English people of the well-to-do classes who ever since they were babies have always had opportunities of getting pleasant kinds of physical exercise, take for granted that all English children know the best kinds of games, and have places near their homes where they can play them. But all those persons who come in contact with many boys learn to their sorrow that only a small proportion of our town-children know any health-giving kinds of game, and that of those who know such games many have no places near their homes where they can play them. Canon Lyttelton, as good an authority as one can find, says that even in winter when games are most played, not 1 per cent. of our people play games.

When the English boy leaves the elementary day school, he may, if he likes—and, unfortunately, the great majority of English children do like—begin at once to forget all that the community has taught him at lavish cost of money, work, and time. Large towns and many small towns and villages maintain continuation classes for part of the year, but as no one can be compelled to study any one subject or set of well-correlated subjects everyone who has taken part in managing evening classes knows that a very large part of the work done in such classes is wasted. In Manchester we have, I believe, the best organised system of continuation classes which exists in England, and in our splendid School of Technology everything that money and the zeal and skill of directors and teachers can do to ensure success has been done. A comparison of the work done in Manchester and Munich will show how futile much of

our English work must be made by its incompleteness. Here is a short extract from an address given in the United States by Dr. Kerschensteiner, the Director of Education in Munich: "The evening courses at the excellent School of Technology in Manchester were attended by 25,000 pupils, while Munich, having four-fifths of the population of Manchester, had only about 18,000 pupils in its continuation schools in the same year. But it is not enough to count only the number of pupils; we must also ask, 'How many hours' instruction does each receive?' And then we find that in Manchester the pupil received 63 hours a year, while in Munich he received 330 hours in the year." In justice to the Munich schools, Dr. Kerschensteiner should have added that a considerable proportion of the 25,000 students in the Manchester continuation classes are men of much over 18 years of age, while all those in the Munich schools are between 15 and 18.

Is our system well fitted to prepare English children, boys and girls, to be good tenants of potentially good houses? One of the most necessary qualities of a good tenant is that of earning enough wages to be able to pay his way. Our system is signally unsuccessful in evoking and fostering this quality. We owe to the book "Compulsory Service," by Sir Ian Hamilton and Lord Haldane, some very striking information respecting the unfitness for earning a living shown by a large number of the young men who have passed through our elementary schools. Sir Ian Hamilton tells us that of the 60,000 youths whom the Army sucks every year from the unskilled labour market "to its huge relief," four-fifths—that is, about 48,000—"come to us because they cannot get a job at 15 shillings a week." Curiously enough, Sir Ian Hamilton assumes that the Army takes those young men who are least fitted for work as civilians, and are, therefore, least able to get employment at 15 shillings a week; but a moment's consideration of well-known facts suffices to show that the Army gets a large proportion of the very best of the unemployed or badly-paid employed. In the year 1899, when soldiers were urgently needed for South Africa, of 11,000 men who offered to enlist in Manchester, all but 3,000 had to be rejected, and of the 3,000 who were not rejected only 1,000 were good enough for the Army. The other 2,000 were put into Militia regiments. Even if we suppose that the 11,000 youths represented only the average condition of the unemployed or badly-paid young men of the Manchester district, the fact that only 9 per cent. of them were physically fit for the Army and only 27 per cent. for either Army or Militia is appalling. No such terrible figures are recorded of any other part of Europe. But, in fact, the figures are more terrible than they seem to be at first sight; the 11,000 men were the pick of a considerably larger number, as no

youth who is unusually short or is unusually narrow-chested, or has very bad health, offers to enlist. In countries which have compulsory service the percentage of youths found physically fit for service is that of the whole number who have reached the age fixed for the beginning of service. The statistics respecting the admission of boys to the Royal Navy tell the same gloomy tale. Service in the Navy lasts for the greater part of life, it is interesting, the men are well paid and get good pensions, and, therefore, the Service is very popular. Boys from all social classes from the lowest till well up in the middle class wish to enter it. The Navy has till lately needed about 5,000 boys a year. It cannot get 5,000 up to its standard, and to get 5,000 who can be made to do, it has had to reject about 30,000 a year. That is, only about 14.28 per cent. are found to be fit for service. The bad Berlin figures, it will be remembered, were 33 per cent.

Mr. Rowntree, in his new book on "Unemployment," mentions that of the 1,278 persons who were found to be unemployed in York on June 7th, 1910, no less than 129, about 10 per cent. of the whole number, were youths under 19 years of age, of whom about two-thirds were between 16 and 18 years of age. Our University Settlement in Ancoats has for several years drawn up yearly a list of the unemployed in its district, and like Mr. Rowntree, it finds that a considerable proportion of the whole number are quite young men. That bad physique, the result, certainly in part, of lack of all physical training, is, quite as much as lack of mental and moral training, the cause of a great proportion of the unemployment of young people in this country, no one who has seen much or heard much of their condition can doubt.

In considering the fitness of our people to be good occupants of dwellings, it is well worth while to read the opinions respecting our urban populations of impartial foreigners, as they always contain either explicit or implicit comparisons of our people with the corresponding classes in their own countries. Here are a few of those which I have met with in the years in which I have tried to study the two cognate subjects of housing and training.

Henri Taine, who valued the good sides of English life very highly, in his "*Notes sur l'Angleterre*" describes some of the poorer parts of London. He says of Shadwell, that in the vastness of its wretchedness and of its extent it is in proportion to the enormoussness and the wealth of London. "I have seen," he says, "the bad parts of Marseilles, Antwerp, Paris; they do not come near it." While he was in Shadwell a drunken woman struck a man. "The bystanders laughed; at the noise the neighbouring alleys poured out their inhabitants—children in rags, poor prostitutes; it was like a human sewer suddenly emptying itself."

After describing the gloomy, filthy dwellings of the very poor in another part of London, he says of one of their occupants: "For a creature so worn out there is but one refuge, drunkenness. 'Not drink!' said a poor fellow at an inquest, 'then it would be better to die at once.'" From London Taine went to Manchester. "The air and the soil seemed to be saturated with fog and soot." The town appeared to him to be a cheaply-built barracks for 400,000 people. "What dull streets!" he says. The dirtiness of the children was one of the things which struck him most.

Taine's book was published in 1872. Since that date our new school-system has effected a good deal of improvement, but many of the evils which Taine noticed are still with us. I will now give a more recently formed impression. In the fourth supplementary volume of Weyl's monumental "*Handbuch der Hygiene*," published in the year 1904, Dr. A. Grotjahn, a well-known German authority respecting physiology, describes a visit to East London. He says: "The first impressions received by one who passes through the working class districts in London are so disgusting that most visitors are deterred from ever paying a second visit. One can go miles without seeing a dress or a shoe which is in good condition. This neglect of dress is found in people of both sexes and of all ages. Then there is the monotony of the rows of houses, the filthiness of the streets, and, more than all else, the fact that here and there the eye falls on a member of that wretched army of so-called 'street arabs,' who are about the most horrifying human beings that the eye of a continental doctor can meet with. . . . These and similar impressions, deepened by the sight of drunken men and women whom one occasionally sees lying in the side streets, prevail when one first visits the London workman's districts. . . . The indifference with which high and low pass these unhappy, almost bestial, but free-born Britons is well-nigh incomprehensible to a foreigner."

My next witness is also a German who is as free as Taine and Dr. Grotjahn from ill-will to England. Dr. A. B. Meyer, the Director of the Zoological Museum in Dresden, in a report published in the year 1902, describes a visit which he paid to Manchester. He speaks of it in these words: "An incredibly sooty town with more than three-quarters of a million inhabitants. Dresden, which has an evil distinction in Germany for smokiness, is in comparison a veritable paradise. One cannot but deplore that civilisation should take a course which produces such misgrowths and makes hells of the abodes of men." Comparing England with the Continent he says, "The poorer class in the English large towns seems more miserable and more degenerate, its manners are more repulsive if it is more remote from culture. In any case it enjoys life less. If one

compares the street life in Paris in respect of enjoyment with that of London, Manchester, Liverpool, Glasgow, the contrast is like that between day and night." Dr. Meyer says that he saw in Peel Park Museum in Salford, which he visited on a half-holiday, a kind of people "who happily are not known in German museums, because in our large German towns we have not so degenerate a population."

Evidence respecting the low quality of our English town-life quite as unfavourable as that which I have cited from foreigners has been given by many trustworthy English observers. Huxley said that the slavery created for the inhabitants of East London by the conditions of their life was a worse form of slavery than he had met with in any other part of the world, and Mr. Winston Churchill has lately made a similar statement. Lately a well-known Canadian journalist who attended the Imperial Press Conference, and saw much of the splendour and wealth which this country has to show, told us that what had most impressed him and his friends was the miserable joyless look of the inhabitants of our large towns.

The large amount of drunkenness in our English towns is certainly in great measure a result of the bad housing of the people, using the word "housing" in a large sense for the arrangement of the houses, as well as for the nature of the dwellings. But drunkenness is now also one of the principal causes of bad housing. In Manchester last year (1910) 4,666 males and 2,122 females were brought before the magistrates for having been drunk and disorderly in the street. For every one person who compelled the reluctant police to arrest or summon him or her, there were certainly many hundreds who were much the worse for drink. Myriads of dwellings must continue to be unwholesome till this great evil of drunkenness is much diminished.

That is the dark side of our English urban life, and it is so black that I daresay those who have read my description of it are inclined to believe that the painter of the gloomy description of it is incapable of seeing any brightness in it. But it has a bright side to which I must now call attention, a side so bright that I am convinced that, if only our Central and Municipal Governments will bestir themselves and use means which are at their command, our people may easily be enabled to be the good and healthy occupants of wholesome dwellings.

In spite of the badness of their physical and other training, as the result of their having, as a rule, small two-storeyed houses, and having also higher wages, shorter hours of work, and cheaper food than have French and Germans, our people have much better health than French and Germans.

The influence of the tall, badly-ventilated, badly-lighted house in causing tuberculosis, is shown with startling clearness by statistics

collected and published a few years ago by the so-called *Casier Sanitaire*, the office in Paris which has a pigeon-hole for every one of the 80,000 houses of the city, and places a record for every death which occurs in one of the houses in the relevant pigeon-hole. On examining the records of deaths which had taken place in the 11 years ending January 1st, 1905, it was found that there were 820 houses, in which there had been 11,500 deaths from tuberculosis, that is, an average of 14·2 deaths per house. The 820 houses were by no means all among the worst-built houses in the town or those which had the worst sanitary arrangements. The evil which was common to them all was that they were dark crowded houses. Lyons has also a *Casier Sanitaire* which has recorded that in each of 538 houses there had been in five years a number of deaths from tuberculosis at the rate of 33·26 per house in 11 years. These Lyons houses also are dark and crowded.

I do not know of any figures respecting German housing which are so startling as those respecting housing in Paris and Lyons which I have just given, but all accurate statistics respecting the influence of German town dwellings are very saddening.

The rate of infant mortality for Berlin in 1880 was 31·7 per cent., and in 1909 14·6. In London it was 15·8 in 1880, and 1909 10·2. The death-rates of persons of from 15 to 25 years of age, both from tuberculosis and from all diseases together, are in London only two-thirds of those of Berlin. Rickets and anæmia are far more common among German than among English children. Dr. Thiele, one of the school doctors in Chemnitz, says that all German vaccinating doctors will agree with his statement that over 90 per cent. of the babies brought to them for first vaccination show signs, more or less serious, of rickets. The death-rate of infants in the badly-ventilated rooms of German town dwellings in hot summers is appallingly high.

One of the most striking indications and results of the great difference between the degrees of over-crowding in English and in German dwellings is the difference between the proportion of illegitimate to legitimate births in the two countries. In London illegitimate births form between three and four per cent. of the whole number of births; in Berlin about 17 per cent., in Munich 28 per cent., and in nearly all large German towns the proportion is large.

I have already quoted part of a description given by Dr. Grotjahn of the condition of the people in a poor district in London. I will now quote a later part of his description, which, with the facts which I have just mentioned, will, I think, suffice to show that our town people have much better health than have German town people.

Dr. Grotjahn says: "Many descriptions of the poor districts of

London give expression to first impressions. Much that is favourable is not observed, because the terrible outside keeps the observer a prisoner from the first. In order not to be distracted by things of secondary importance, I began at once to confine my attention to concrete things—for example, to the occurrence of rickets, the so-called ‘English disease,’ in the innumerable children running about in the street and the public gardens. To my very great astonishment I noticed that this disease, which in Berlin and its suburbs can be seen even by the passer-by in the majority of the carefully dressed workmen’s children, is very rare among the ragged urchins in the working-class districts in London. Most of the children are very well fed, have rosy cheeks, and are vigorous in all their movements. Children, also, with the faces which are typical of sufferers from adenoid growths in the nasal cavity are seldom seen—not nearly so often as in Berlin and Rixdorf.”

This description of London children is more favourable, I think, than an English doctor would give, but it is certain that English town children are healthier than German. Dr. Grotjahn attributes their better health to several causes, of which one is the general use of houses of two storeys, “from the small, often stable-like interior of which the children can pass in a moment into the open air, though it be only into a dirty yard or still dirtier street.” He is so much impressed by the superiority of some of the conditions affecting the life of the inhabitants of English towns to those found in German towns that he says: “The example of England makes it probable that the great dangers to health of town life and industrial occupation are not irreparable, and that industrialisation, though certainly for a time an injury to the population which it affects, cannot bring about a lasting deterioration, which must be inherited by coming generations.”

I must mention that, on the other hand, Dr. Beutler, the Oberbürgermeister of Dresden, was so painfully impressed by the dirtiness and untidiness of some of the workmen’s dwellings which he saw in Manchester and Leeds, that he refuses to admit that the English workmen’s house is a better kind of dwelling than the tall barrack block of the German town. But no German who has studied the question of housing carefully shares Dr. Beutler’s opinion.

That the right structure of dwellings is of very great importance is proved by the fact that, in spite of their inferior physical and mental training, of their inferiority in cleanliness and orderliness, of their inferior physique, and of their greater addiction to drunkenness, the English working classes have much better health than the German working classes.

That good physical and mental training—training in orderly habits and cleanliness—are of very great importance in relation to housing is

proved by the fact that in spite of the unwholesomeness and dearness of their dwellings, of their lower wages, longer hours of work, dearer food, and worse health, German workpeople have better physique and better-kept, cleaner dwellings than our people have.

All the numerous examinations of dwellings made in towns and country places in this country have shown that everywhere there are a considerable number of dwellings which have serious structural defects and faults, or both, and that not a few of these dwellings cannot be made fit for habitation. We know also that in many places many additional dwellings would be needed even if all the existing houses were wholesome or could be made so. But if my argument is sound, I think I have shown that what is most urgently needed for the improvement of housing in this country is the adoption by the Central Government and all our Municipal Councils and other Local Authorities of a new and saner conception of the needs of even the poorest and humblest human beings ; and it seems to me to be one of the most urgent duties of the Christian Church first to form for itself the necessary conception of those needs, and then to use its power and influence to the fullest possible extent to communicate the conception to our authorities, and to induce them to give effect to their new knowledge in their control both of education, town planning, and the construction of houses. One part of the new right conception of the needs of every human being is that all his training must be founded on good physical training. I can mention here but a small part of all that this involves for Local Authorities. All children must have good physical training in schools ; no plan for any area intended to be used for workmen's dwellings ought in future to be approved which does not provide for a playground within reach of every dwelling ; for every one of the larger playgrounds in a town an attendant able and willing to teach children how to play wholesome games ought to be appointed and ought, till the children have formed orderly habits, to have as many assistants as he needs for the purpose of maintaining order and teaching the children how to play ; and the whole system of playgrounds ought to be placed under the charge of a well-trained inspector, and treated as an important part of the educational system of the town. Another part of the necessary new conception of human needs is that knowledge and love of Nature are necessary for everyone. Without such knowledge no one, rich or poor, can live a life which is not distinctly sub-human. Without knowledge and love of the kind it is impossible to feel respect or love for the Ruler of the Universe, or to know the potential nobility of human nature, and without it is almost impossible to resist the temptations of drinking and licentiousness, because all the more wholesome kinds of recreation owe much of their attractiveness for those to whom they are attractive to

their power of appeal to love of Nature. It has been fully proved that nearly all children, if they are early brought into contact with flowers, trees, and other beautiful things, if they have good, well-used pictures in their schools, if they are taught to draw and to do brush-drawing, gain knowledge and love of the beauty both of Nature and Art. The Town Planning, Housing, &c., Act gives our Town Councils full power to see that playgrounds and small planted open spaces are provided for all new dwellings, and as Town Councils are also our education authorities, they have also full power to provide all elementary schools with flowers in the rooms, with school-gardens and school-pictures, to see that drawing and brush-drawing are taught in all schools, to see that all scholars are taken by sympathetic teachers in school hours to picture-galleries and museums and that there are curators there able and willing to interest scholars and teachers in the contents of the galleries ; and to introduce into all elementary schools those methods of sense and hand-training and of self-expression which have been used with such admirable results in the country school described by Mr. Holmes in "What is and what might be," in the infants' departments of many other English schools, in the schools in Rome controlled by Dr. Montessori, and since 1897 in all the elementary schools of Munich and in the preparatory classes of the Werner-Siemens Realgymnasium in Berlin. It is inconceivable that men and women, trained as children in all these schools have been trained, would not be very much better tenants, as a rule, whether of good or bad dwellings than are the great majority of the occupants of English houses at present. Another part of the desirable change of conception is respecting physical cleanliness. The late Sir Edwin Chadwick tried the experiment of having all the children in a village-school well washed with tepid water and soap once a week, and found that their health, their working power and intelligence, as well as the air of the school were improved by the process. It is as surprising as it is lamentable that in this country where the well-to-do classes pride themselves on being the best-washed part of the human race, and where the great mass of the people have filthier air to breathe and move about in than those of any other nation, Sir Edwin Chadwick's good example should not have by now been followed in all elementary schools. Even in poor Switzerland every new school for which water can be obtained has its range of shower baths.

It seems to me impossible that unless we have compulsory continuation schools, and either compulsory national service, or some other system which shall give all young men good physical training and training in cleanly and orderly habits for at least six months, we can expect that our people shall have the most wholesome possible dwellings.

So far I have spoken only of training of the occupants of dwellings

and, indeed, only of that part of this training which can be given in childhood, and of the need of using the powers given to local authorities by the Housing and Town Planning Bill for the purpose of placing playgrounds and small planted spaces within easy reach of all *new* dwellings. But much other work will have to be done. Although as compared with the houses in many German and other Continental towns, our workmen's houses must be regarded as on the whole potentially wholesome, a great many of them are not so, and a still larger number of those which, considered separately, are potentially wholesome, are made unwholesome by having other similar dwellings too near them.

I shall not speak at length of the duties of local authorities respecting the closing and removal of dwellings which are so structurally wrong that they cannot be made wholesome by repair. There are few places in which much good can be done by the removal of any but very dangerous dwellings till a supply of better ones has been provided, and the subject of how to stimulate the supply of wholesome dwellings is part of my subject with which I have not time to deal. I must confine myself to considering how we can ensure that all the dwellings which are supplied in future shall be wholesome, and how we can bring all existing dwellings into the best possible condition. Local authorities ought certainly to use their powers to clear small spaces to be used as playgrounds amid existing masses of small dwellings. The public authorities and private societies in Chicago have shown how this can be done and how well worth doing it is. They have formed a large number of playgrounds in crowded districts, some of the grounds having an area of over 20 acres, and have placed them under the charge of attendants trained to teach games, and the result is that in the districts so treated there has been a remarkable diminution in juvenile crime.

All the measures which I have mentioned so far would have their fullest influence for good only on the tenants of the future, though those which relate to the right placing of new dwellings and the provision of playgrounds and planted open spaces in existing crowded districts would do at least something towards improving the health and the habits of a large number of adults. But if we are to make a great improvement in the housing of our people in the next few years, and if we are to prevent the good influence of improved schools and playgrounds from being counteracted and neutralised in homes, we must close as soon as possible all very unwholesome dwellings which cannot be improved, and we must take measures promptly for ensuring that all unwholesome dwellings which can be improved shall be improved without delay.

Our country already contains so many officials, and is soon to be flooded with so many more, that I almost dread to say, as I am compelled

to do, that the measure by which the condition of existing dwellings can be most quickly and fully improved, and a measure, without the adoption of which it will be impossible to ascertain what additional measures will be needed, is the creation of a system of effective inspection of all small dwellings.

And I must say at once on behalf of the system that those who have had most experience of it assert that one of its great merits is that, if well done, it will make itself unnecessary.

The Housing and Town Planning Act makes it the duty of all local authorities to cause dwellings to be inspected in order that defects may be discovered and set right, but it leaves it to the local authorities to decide by whom, how often, and with what degree of care, inspections shall be made; and we know with perfect certainty that at least some local authorities—some because they are strongly influenced by the owners of unwholesome dwellings, others because they do not know to how serious an extent dwellings in their area are unwholesome; others for other reasons—if left to themselves, will either have no inspection, or only a very perfunctory inspection made of the dwellings in their areas; and that even in some of those places where inspection is carried out with care, remedial measures will not follow it. The National Housing Reform Council, who obtained from Sir Henry Campbell Bannerman and his colleagues the promise of legislation which led to the passing of the Housing and Town Planning Act, knew so well the need of stimulating and aiding some local authorities that they strongly urged the Government to let the Bill include provisions for the appointment of Government inspectors, of the status of those who have done such good work under the Alkali Act, to supervise the action of the inspectors appointed by the local authorities, but they were unable to convince Mr. Burns of the need for the services of such men.

The best way of indicating some of the principal reasons for having here a very efficient system of inspection of all small dwellings, both in town and country, will be to describe very briefly the method adopted and some of the results obtained in one of the countries in which inspection has been most intelligently and thoroughly applied. It was in England that local authorities first ventured to infringe what had been considered the almost sacred right of the citizen to do as much harm as he liked to himself and others by the neglect in his home of all that was needed for health, but of late years Germany has used inspection much more largely than we have done. The Free State of Hamburg, the Duesseldorf district of Prussia, Hessen, and Bavaria, have all very thorough systems. I shall speak only of some of the results obtained in Hessen, whose system seems to me to be the most thoroughly worked. Hessen started

systematic inspection of small dwellings in town and country in 1893, but it is only in this century that the system has been fully developed. At the head of the whole system is the National inspector, Landes-Inspektor Gretzschel, whose duty it was at first to give help towards the starting of local inspection wherever help was needed, and whose duty it is now to see that inspection is carried out efficiently in all parts of the State, and to give help in improving defective parts of the system. Mr. Gretzschel is probably the highest authority in the world on the subject of inspection, and his reports are always most instructive and interesting. Under him are the paid inspectors of districts, some of whom are women-doctors. Below these are the local inspectors for towns and country places. In the country all the inspectors, as a rule, are unpaid; in the towns most are unpaid, but there are a few who, having the hardest and most work, receive salaries. A very large proportion of the dwellings, in many places much more than half the whole number, when first inspected are found to have serious defects, due either to the neglect of owner or occupier. Of these defects over 80 per cent. are made good at once when the attention of the responsible person is called to them. In only a very small proportion of the cases is it necessary to have recourse to legal compulsion. Great care is taken to choose persons of pleasant manners, tactful and courteous, as little like policemen as possible, and this care has the gratifying result that the annual reports can say that the inspectors are soon regarded as most useful friends both by tenants and landlords. The district inspectors are able to do most valuable work, not only by teaching the tenants the high worth of fresh air and of such precautions as opening windows when washing is going on, so as to prevent walls from being made damp by steam, but also by co-operating with all the public authorities and philanthropic societies which seek to improve health and education, to promote thrift, &c.

The necessity for systematic inspection of all small dwellings has been so fully proved in all the countries which have introduced it, that, at the International Congress for Wholesome Dwellings, held in Dresden at the beginning of last October, it was admitted by all the representatives both of Germany and all foreign countries, and even by the special representatives of the German house owners. Herr Gretzschel, who presided at the Congress, says in an article in the "*Zeitschrift fuer Wohnungswesen*" of November 10th, 1911, p. 45, that no Government should delay to make the inspection of dwellings compulsory by law. "This part of the housing question," he adds, "is fully ripe for legislative enforcement." The papers read at the Congress by Dr. Frenay, and the

Buergermeister of Darmstadt (Mr. Mueller), contain information respecting the working of the system in Germany which would probably be very useful to all English authorities.

All the reports which I have read, both those of the head-inspector and those of the women-doctors, show clearly the very great importance of the economic factor in the causation of unwholesomeness in dwellings.

High rents obviously leave an insufficient margin for the food needed to maintain the health, vigour and hopefulness without which a woman cannot long keep her dwelling in good order, and they compel workpeople either to live in too small dwellings or to overcrowd their rooms with lodgers.

But rents which are not high to a normally paid worker are high to a worker whose wages are low, either owing to his having bad health, or being of low working power, owing to lack of skill or strength, or some other reason, or who has a sickly or drunken or stupid wife ; and relatively high rents have the same bad effects on housing as have absolutely high rents. The working of the economic factor is clearly shown in some of the German reports. As a rule it is found that the dwellings of families, of which the mothers work in mills, are less well-cared for than those of families of which the mothers remain at home all day, but Dr. Rosa Kempf, in a study of the young girls who work in factories in Munich, states that in that town where much trouble has been taken to train girls in the elementary and continuation schools to do household work and to know what a home ought to be, the homes where the mothers work in mills are, as a rule, kept in better order than those of women who are at home all day, the reasons being, in her opinion, that the mill workers have more money to spend on their dwelling and that the daily compulsory absence in the mill, which is not long enough to cause physical exhaustion, endears her home to the mother and causes her to make greater efforts to keep it and her children in good order. If we are to have as many good tenants in good dwellings as possible, we must do our utmost to ensure that workpeople shall be well paid. For even persons who know quite well the dependence of health and strength on fresh air will not have their bedroom or sitting-room windows open either at night or in the day time if they are chilly from lack of sufficient food or clothing.

We must take great care in this country not to lose the very great advantage which we possess in the comparative cheapness of our dwellings. The power given to local authorities to limit the number of dwellings per acre without having to pay compensation for so limiting it, enables them to prevent rents from being made high by the dearness of land. For it is the amount of income which can be obtained from any given plot of land which decides what its value shall be.

And the power given by the Act to a local authority which has the consent of the Local Government Board to suspend all its by-laws will enable local authorities to prevent dwellings from being made too costly by unnecessary width of roads and unnecessary height of rooms. As no space above the top of the windows is of any sanitary value in a room, it is always better to save expense by not making rooms much more than 7ft. high, and to use the money saved in giving increase of floor area.

We hear much of the need to provide workmen's dwellings in parts of towns where land is dear, because, it is said that there are many persons who must live close to their work. There are doubtless some such persons, but not very many, and apart from the fact that it is desirable to build dwellings, as a rule, only on cheap land, so as to prevent rents from being high, it is most desirable that all workpeople shall be compelled to walk some, not too short, distance from their dwellings to their work and back. It was found that in one of the German imperial manufactories more than 9 per cent. of the workpeople who lived close to their workplace suffered from tuberculosis, while of those who had to walk a mile or two between their homes and the factory, only about 2 per cent. were consumptive; and there is much other evidence of the same kind.

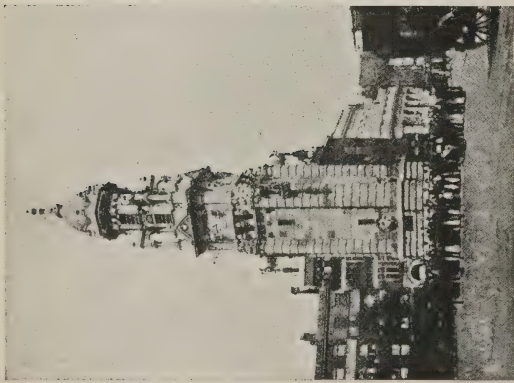
The task of giving this country the largest possible number of healthy happy people, housed in wholesome dwellings which have wholesome surroundings, is of the most pressing importance. A country, 78 per cent. of whose inhabitants are in large unwholesome towns, and whose 22 per cent. of countrypeople represent the less energetic part of the population of a century ago, and are constantly supplying a stream of emigration to other parts of the world, cannot afford to let things go on as they are now doing. The task, though big and difficult, is not unaccomplishable.

Twenty years ago the district of Schmalkalden, in Kassel, contained a miserable population of about 33,500 persons, many of them injured in health by poverty, long hours of labour, and unwholesome dwellings and workshops. Barely 20 per cent. of the young men of 20 years of age were physically fit for military service. One man, Mr. Hagen, the president of the district council, by causing the improvement of dwellings and workshops, and by bringing all children and young people under the influence of gymnastics and games, has so much raised the level of health that already the proportion of youths fit for military service has risen to 47 per cent., and when those who have had the beginning of their period of service put back for one or two years have joined the colours, the proportion will be 65 per cent.

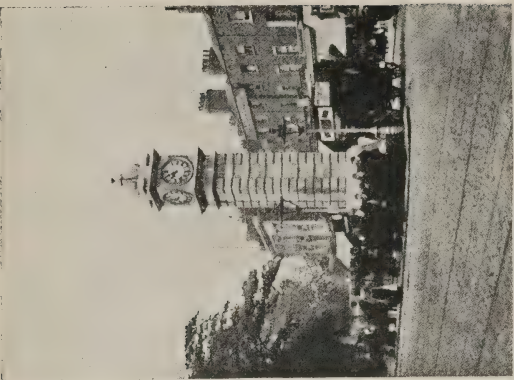
The experience of Sweden is as encouraging. Eighty years ago it

was one of the most drunken countries in Europe, and its people were in a state of great physical as well as moral deterioration. But it was not lost. It set itself to reform its licensing system, and it is now a sober country. In 1872 it made Town Planning compulsory, it has compulsory military service, and it has for many years given all its young people excellent gymnastic training. Its people now are, I am assured by a very good authority, physically the finest in Europe, and what is most encouraging, the inhabitants of its towns are even finer than those of the country districts, because it is easier to enforce temperance and to ensure the giving of good physical training in the towns than in the country.

T. C. HORSFALL.



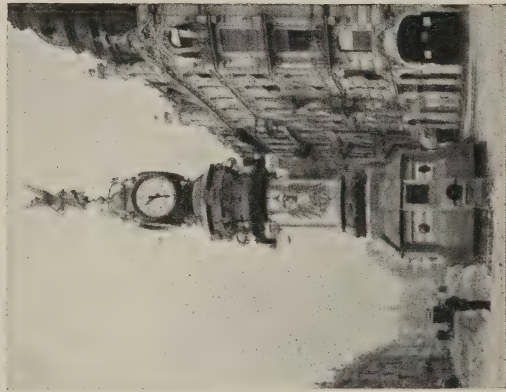
ST. GEORGE'S CHURCH, LONDON



CLAPHAM, LONDON



THE CARRIE TOWER, BROWN UNIVERSITY
PROVIDENCE, U.S.A.



FRANKFORT



REIMS

TYPICAL MODERN CLOCK TOWERS
AND CLOCK MONUMENTS

THE DECORATION AND FURNISHING OF THE CITY.

No. 4.—Clock Monuments

Time is the relentless monitor which regulates the daily avocations of the crowd. Of innovations which have recently been introduced into towns none epitomise the spread of modern existence as does the clock monument; its hourly pronouncement reminds us continually of appointments to be kept and duties to be performed. By the aid of the public clock we catch our suburban train, and within sight of it have naturally been placed the principal stopping places for the trams. Replacing sundials, clocks were at first fixed on the towers of churches, but later towers erected for the special purpose of receiving a clock were considered the necessary appendage of almost all public buildings. The clock tower at Westminster in connection with the Houses of Parliament is perhaps the best example of this; in design it very appropriately assumes the proportions of the "grandfather" of domestic use. But it is not with clock towers, which are the architectural appendages of buildings dominating cities as a whole, that we are at the moment concerned, but rather with the isolated clock monument of later introduction. The laying down of tramway systems has created in our towns new and important traffic termini and these in their turn have created a demand for public timepieces for the use of groups of people congregated together at tram stops and important waiting points. This demand coming simultaneously with a desire on the part of a public imbued with essentially utilitarian ideas for the erection of public monuments to commemorate matters of local interest or, say, the jubilee of a queen, has encouraged the fashion for erecting the modern monumental clock.

Unlike the arch, the obelisk or the column clock monuments have no hereditary form. Germany can produce one or two examples erected during the late renaissance, in particular one at Frankfort. But apart from these which are not of much value, we have in the design of the monumental clock a feature of city embellishment which in its design opens up an entirely new field for creative ability. Where then should we turn for inspiration?

Quite naturally our imagination pictures either architectural clock towers in miniature or the household timepiece abnormally magnified. A reference to the clock towers which have been erected at St. George's Circus and Clapham, London, illustrate the application of the former principle, whilst a reference to the clock towers from Frankfort and Breslau illustrate the application of the latter. None of these are, however, good examples of what could be made of the monumental clock.

The two towers referred to are totally unsuitable for erection in the centre of a street. In fact, generally speaking miniature clock towers in such positions are altogether indefensible. The best known example with which we are acquainted is one designed by Mr. Guy Lowell for Brown University, Providence, and known as the "Carrie Tower:" Its shaft is attenuated and standing as it does amidst tall trees it would appear to be straining itself to the uttermost in order to raise its head well aloft. The examples referred to from Frankfort and Breslau, based as it would seem on the timepiece of domestic use, have an unfortunate hereditary disposition, and are not altogether the type of clock monument which we would like to see continually perpetrated in the modern street.

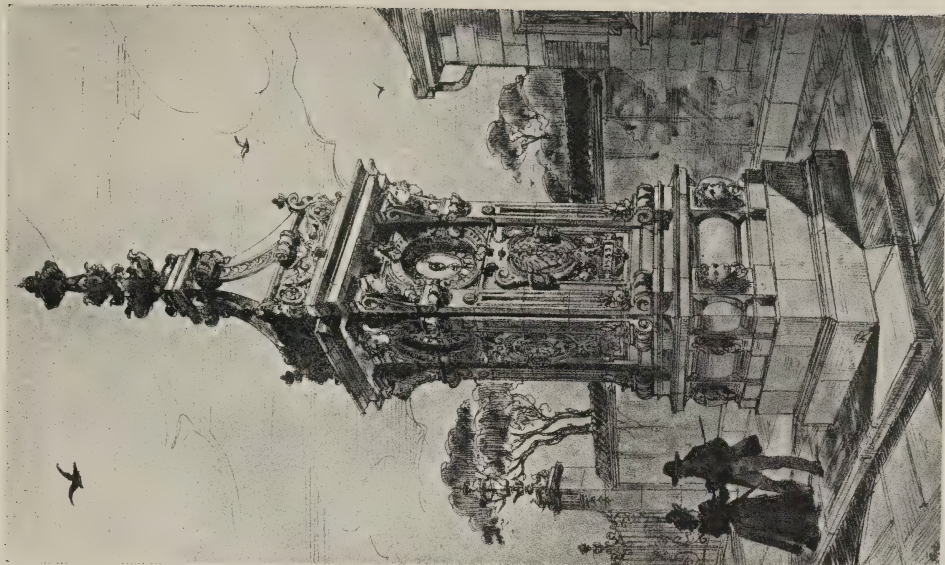
Turning to the household timepiece for inspiration, what could be more suitable than the clocks which were the outcome of the Empire periods in England and France. These clocks, though in miniature, have a monumental character, a refinement and a beauty of detail not found in earlier examples, and their adaptation as monumental clocks to streets, opens up possibilities as yet unexploited.

They might be embellished with gilded ornaments as was the work of the Empire period, and they offer opportunities for the display of architectural sculpture not possible in any other style. Plates 107 and 108 from designs which have been prepared by Mr. Newbold, of the School of Civic Design, Liverpool, illustrate two designs prepared in the school for monumental clocks in this manner. In Germany many of the modern towns display clocks as terminals to advertising columns, lamp standards, &c. We illustrate an example of such a one from the Kaiser Strasse, Frankfort. In America small clocks in streets are often placed like colossal timepieces at the heads of columns at intervals along the sides of the footwalks. Such may be seen in Vancouver and in New York. They are obstructive and unbalanced, and to display colossal watches at frequent intervals in the main thoroughfares is very distracting.

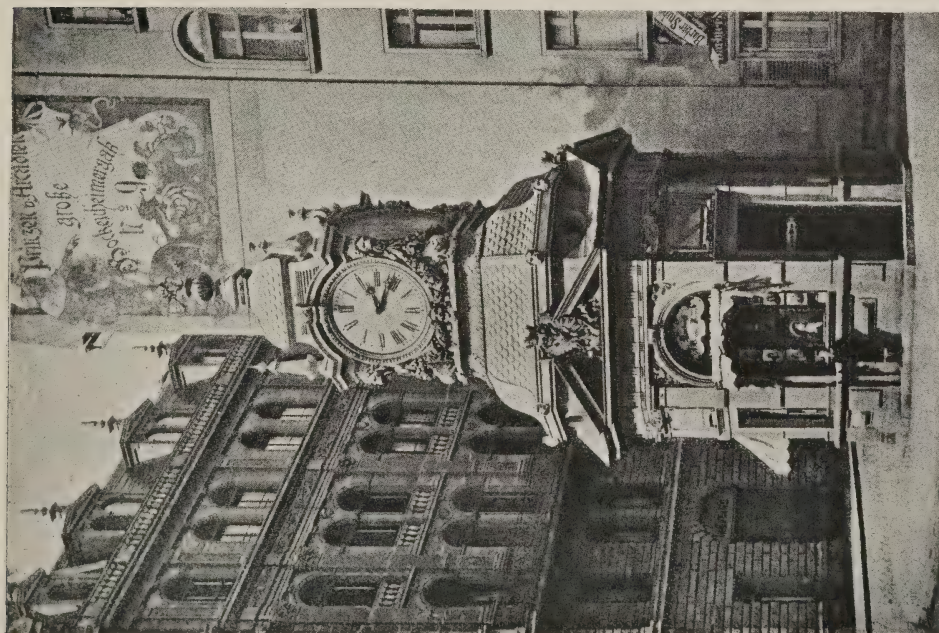
In the placing of clock monuments it should be borne in mind that the clock monument as such, is an independent feature, and to associate it with lavatories, cab shelters, advertisement columns, and other incidents—combinations unfortunately, but too frequently, seen in the modern thoroughfare, shows a lack of simplicity of idea and directness of purpose, and reminds one of the various uses of the sailor's knife.

With clock monuments we conclude our reference to those features which in the decoration and furnishing of the city, may attain to monumental proportions and which necessarily occupy only the most important positions in towns. With the commencement of the next volume, this series of articles will continue with fountains, and will follow with other features in which sculpture plays an important part.

S. D. ADSHEAD.

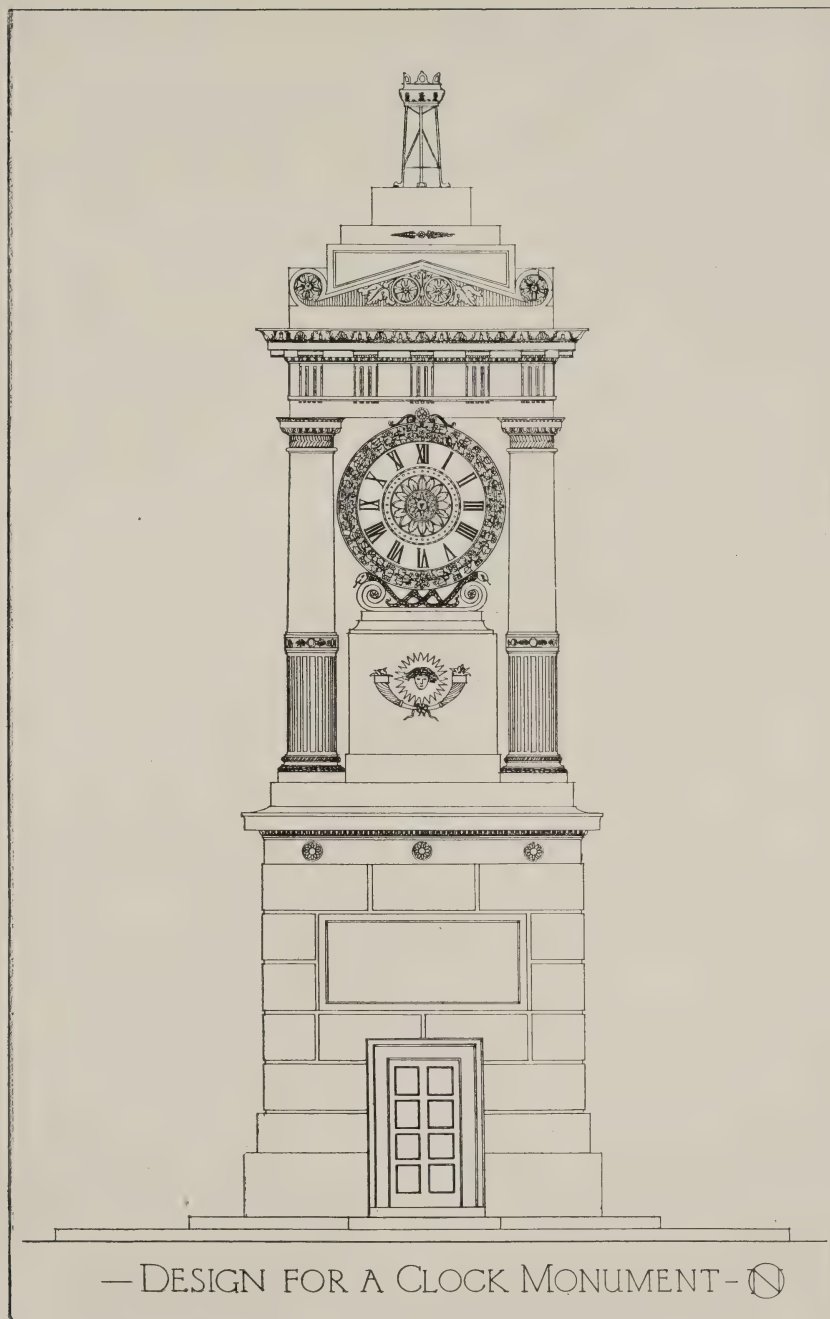


BRESLAU



FRANKFORT

CLOCK MONUMENTS



A CLOCK MONUMENT IN THE MANNER OF THE EMPIRE PERIOD



A CLOCK MONUMENT IN THE MANNER OF THE EMPIRE PERIOD

THE POSITION AND PROSPECTS OF LANDSCAPE ARCHITECTURE IN ENGLAND

II.

The Proposed Society

It is impossible that I should not have been gratified by the large amount of friendly criticism which the first paper of this series has called forth. Not only did my friends and colleagues, Mr. Abercrombie and Professor Adshead, each devote space in the *Review* to the subject discussed, but most of its readers whom I have met since the article appeared have also shown a keen interest in it.

This is not surprising, for on the position of the Landscape Architect depends very largely the answer to the question :—Who shall plan the cities, towns, villages, and suburbs of the future ?

On one subject all my critics are agreed, and on this I should be the last person to differ from them. They all recognise that no one man, in the space of his natural span of existence, can attain to sufficient knowledge of all the many component subjects to allow him to plan a city from the cutting of the first sod to the choice and selection of the personnel of the municipal brass band. Between these two extremes, the first necessity and the last luxury of city formation, comes a vast agglomeration of specialised effort which must entail the services of many experts, and it is assumed by most of my critics that the final oversight, the last word, must necessarily be placed in the power of one of them. Professor Adshead says : “ In England there still exists great variance of opinion as to which profession most nearly possesses the necessary qualifications. The real issue lies between the Architect and the Engineer, whilst surveyors, landscape architects, and sociologists have certainly a voice in the matter.” He then goes on to suggest a kind of compromise. The surveyor is to have control during the preliminary work, then the engineer is to be in command, and finally the architect is to take possession of the field, and furnish the plan with buildings. This point of view is typical of most of the others, which must be my justification for taking it up for criticism.

I cannot but feel that the greatest end of Town Planning cannot be served by such a compromise. The one point above all others which its advocates have insisted upon is that continuity of policy from start to finish should be assured, and this cannot be if each specialist is to be in control in turn, however much he may be guided by the others whose spheres interlock with his. This brings us to the inevitable conclusion

that there must be some person whose training has been such that he is in sympathy with all the specialists employed, but who is *not* one of them, to exercise the judicial faculty, to co-ordinate and correlate and to see that every interest is adequately met; and this is the person who, for lack of a better name, I call the "Landscape Architect."

But the reader will say, What has all this to do with the suggested formation of a Society of Civic Design? It has everything, for if the paramount position, the last word in city design, is to be in the hands of the monumental, domestic, or other architect, or engineer, or some other specialist, then there is no need for a society such as that proposed, for its functions would be better fulfilled by a sub-committee of the professional society of the particular expert chosen. The very fact that the necessity for an independent body is recognised shows that it is almost instinctively felt that the committees of the various professional societies which have been formed for the discussion of Town Planning problems from the particular standpoint of the specialists concerned cannot meet the whole case, and that therefore an entirely new profession is required which shall embrace, as I said in my last article, the consideration of Town Planning problems in the mass and from the lofty standpoint over large areas. Even if English architects had availed themselves of the training of the *Ecole des Beaux Arts*, not instead of, but in addition to, the R.I.B.A. curriculum, the case would not have been entirely met, though there they would have studied spacious planning in a way impossible elsewhere.

In France the *Prix de Rome* man studies the staging of buildings in a way unknown here. He looks beyond the unit and comprehends the composition of the prospect as a whole. Here, on the contrary, every piece of Town Planning which has been done so far has proclaimed the insularity of the point of view of the architect. It has even been said with much truth that the very qualities which make our domestic architecture incomparably good unfit our architects for the production of great schemes in civic art. The former task magnifies the *ego*, while for the latter work it is necessary to suppress it, and that is the very last thing the English architect would submit to. This is not his fault—it is merely the inevitable result of an egregious individualism which is of more or less modern growth.

The engineer is in an equally bad case, though for an opposite reason. To quote again from Professor Adshead: "The Municipal Engineer, by reason of his official position, and the amount of attention he must necessarily give to what is, after all, the conduct of municipal affairs, is not naturally placed in surroundings which are congenial to much idealising, and therefore"

the tendency is for his ideas to be matter-of-fact, perhaps crude and possibly immature." The same applies to the engineer in private practice, for, notwithstanding brilliant exceptions to the contrary, it is absurd to expect a gentleman whose whole training has been in exact sciences to develop those æsthetic qualities which defy analysis.

It is this state of things which has produced that somewhat nebulous but nevertheless distinct feeling of vaguely tolerant contempt which the architect feels for the cast-iron fligree and glazed brick of the engineer, while the latter dislikes what he calls the "impracticability" of the architect.

These considerations provide us with the first and most important task which the new society must take up. When first formed it will inevitably include in its membership representatives of all the allied professions dealing with construction and design as represented by the modern city, and therefore it is essential that it should first of all seek to produce a complete understanding of the position, ideals, and aims of each class on the part of the other. Until this is done, any attempts at progress in other directions must inevitably fail to a very large extent, for hearty co-operation is the one thing above all others essential to success. I would place this requirement even before that of the education and training of the town planners and landscape architects of the future, to which, however, I attach such importance that I intend to give it an article to itself. How this desirable end should be attained would, therefore, be one of the first things to be threshed out by the executive when formed; but lectures by members of the various professions concerned, conversaciones, and discussions of the various subjects from the point of view of each class would be essential.

If the proposed society devoted the whole of the first ten years of its existence solely to this work, it would have completely justified its existence, but coupled with this there must be two other branches of educative work. The first is the training of the Landscape Architects of the future to which I have just referred; the second is the education of the public in civic art which will include the inculcation of the civic spirit and of a broad and enlightened outlook, and also the education of children in civic consciousness.

Much has been done in the last ten years by those societies interested in housing problems and in the promotion of garden villages or cities; the great experiment at Letchworth has also, at least, removed many mistaken notions as to what is possible and desirable, and, by the very attention it has attracted, has had an enormous educative influence. The new society, however, if properly conducted, might reach ground hitherto untouched by any of these agencies, and still more might be done

by co-operation with them. As yet, notwithstanding all that has been done, not only by means of lectures and exhibitions, but also by the preparation of actual schemes, the aim and objects of Town Planning and Civic Art are very little understood by the great masses of people who must be reached before that popular assent can be obtained which is necessary to all great undertakings.

In the space of so short an article I have thought it best to deal with these more abstract questions, and root principles governing the composition of the new society, leaving others to work out their logical results rather than enter into a discussion of all the minutiae and procedure which would be regulated by its code of rules, as to do so at all adequately in the space at my disposal would be impossible. There is, however, one matter of this kind which is of such paramount importance that I cannot close without referring to it. This is that it is most important that the composition of the society and its various classes of members should not be arranged just to suit conditions as they exist to-day, but as they will become in the future when landscape architecture has taken its place as one of the universally recognised professions. With this end in view, ordinary membership should be limited to : (1) those persons practising at the time of its formation as town planners in this country ; (2) those persons who have passed the qualifying examination of the society, or are undergoing training as probationers ; (3) distinguished persons practising as landscape architects in other countries and elected by ballot. Besides these classes, which would comprise the ordinary and corresponding members, I would have a class of honorary members, which, though at first it would necessarily be much the largest, would, in time, take its proper relation to the others. This would include members of all the allied professions and the specialists mentioned earlier in the article, and eminent men in every branch of applied art and science whose aid and advice on the various committees and the examining board would be invaluable.

THOMAS H. MAWSON.

PARIS

Some Influences that have Shaped its Growth.

D.—Street Rectification and Logical Completion

The desire for street rectification and an attempt to combine the existing features of Paris—the Grande Croisée, the fortification rings and the royal gardens, avenues and palaces—into a logical whole, represent the final influence which has been brought to bear on its plan.

There were three main energies in this phase of Parisian town planning : firstly, the recommendations of the Commission des Artistes appointed by the first Republic in 1793 “pour la division des grandes propriétés nationales, l’embellissement et l’assainissement de la commune de Paris” ; secondly and immediately following, the colossal schemes of Napoleon Buonaparte, who wished to make Paris, not only the most beautiful city in existence, the most beautiful city which had yet existed, but even the most beautiful that could exist ; and thirdly, the accomplishment of Haussmann acting for Napoleon III. During the interval between Napoleon I. and Napoleon III., the planning was carried on, even as to a certain extent it has been by the third Republic, but it represented no new departures and was merely the impetus of one or other of these three energies carrying forward their ideas after their actual period has closed.

The essential features of this last division of Parisian development are what have come to be regarded as typical of French town-planning, they are the bold piercing of roads through densely built-up old quarters, the radiating of streets from given points, the providing of vista approaches to all great public buildings and particularly to the railway stations, and finally the conception of the city plan as a complete organism rather than as a collection of unrelated cells. The salient characteristics are traffic facilities and monumental grouping, and perhaps to these should be added tree planting. Park provision has always played a very secondary place in French town planning, and housing has received scant attention until within the last few years.

The Plan of the Commission des Artistes (1793)

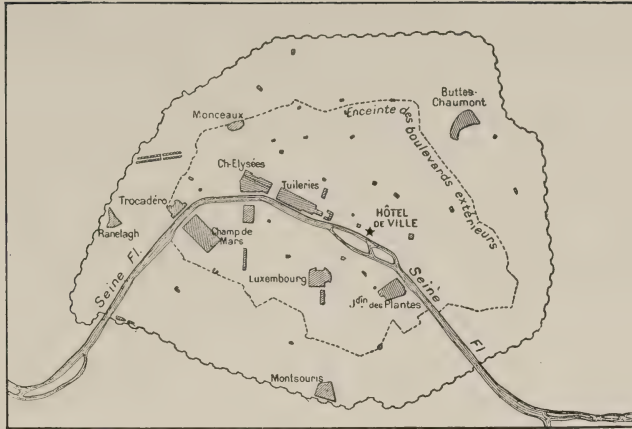
The plan produced by the Commission des Artistes (Frontispiece) is one of the most remarkable pieces of town planning in existence and deserves to be more widely known than it is. Although it comes as it were as an incident in the growth of Paris, it marks a departure almost as epoch-making as Wren’s plan for London. Never before had an attempt been

made to tackle the built-up areas of the city, all the fine approaches, broad streets and tree-planted boulevards which appear already in existence on this plan, were originally constructed on an open site—either of disused fortifications or open country—and gradually became embedded in the town. The object of the new policy was to bring the old town into scale with the new boulevards, and it was to be pierced by a system of broad straight streets. With our recently obtained legislation we are only in a position logically to carry out this “open country” town planning; the policy advocated and begun in 1793 by revolutionary France, is still beyond our grasp.

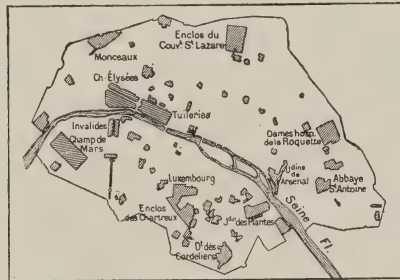
It is hardly to be wondered at that the proposals of this Artist Commission (which included architects, engineers, and artists), produced at such a period, should be somewhat doctrinaire in nature. They were, in fact, in many ways ideal, rather than practical, but it is remarkable how many of their suggestions have been made use of at a later date. Perhaps the most theoretic and far-fetched was the proposal to make the Observatoire the centre of a star of streets, the main cross being on the meridional and the perpendicular to the meridional. The star thus formed was quite at variance with the general tendency of the streets in this quarter, which run in a south-west direction from the river and cross the Boulevard St. Jacques at right angles. But it was found that the meridian line passing through the Observatoire hit almost exactly the centre of the Luxembourg Palace; this fortunate chance was enough to suggest the whole scheme, though the Observatoire was then, and has remained, by no means a building of first importance, and the star of streets leading up to it would have served little purpose. The avenue, however, leading to the Luxembourg has been constructed and remains one of the most charming features of Paris, directly due to these revolutionary artists.

Of course, what made possible this lavish suggestion of new streets, and in a sense gave rise to this “street-piercing” policy of town planning, was the enormous amount of confiscated religious property which came into the hands of the State. It is to be regretted that, instead of multiplying roads where the properties abounded, as here, near the Arsenal, and at the back of the Tuileries, they had not made recommendations for their preservation as open spaces. Fig. 2, plate 109, shows the amount of open spaces within the boulevards compared with what exist to-day. The open space round the Trocadero (formerly the “Visitation St. Marie”) is practically the only one that remains; the vast enclosure of the convent of St. Lazare has entirely disappeared.* On Maire’s plan

* Now largely occupied by the Gare du Nord.



1. PARIS, EXISTING OPEN SPACES WITHIN THE WALLS



2. OPEN SPACES WITHIN THE BOULEVARDS EXTÉRIEURS AT THE TIME OF THE REVOLUTION



3. LONDON, OPEN SPACES WITHIN AN AREA SIMILAR TO THAT OF PARIS

PARIS AND LONDON [From Hénard]

of Paris (1808) there is a note about this enclosure, which was one of the last to be broken up :—

“*Quel enclos immense dans les murs de Paris ! Il est beaucoup plus grand que le jardin des Tuileries.*”

It is a pity that this suggested comparison did not suggest a similar treatment of preservation as open space. One reason for the different treatment which the royal and religious enclosures have received, may be that the latter were not so completely laid out as the Royal Gardens ; they were utilitarian enclosures containing vegetable gardens, exercise grounds, &c., and it was too early in the history of town planning for it to be realised what a magnificent opportunity this was for the creation of a series of parks proportioned to the area of the city. The circle of Parisian fortifications superimposed on London with the Guildhall where the Hotel de Ville is, shows how very much better off London is to-day than Paris with 1,880 acres as compared with 637 acres.

The most ambitious suggestion made by the Commission was to form a direct connection between the place du Trône and the Place de l'Etoile. They proposed a circular place with radiating streets on the site of the Bastille, with a straight street leading direct up to the centre of the Perrault façade of the Louvre ; here a semi-circular place to be formed (incidentally destroying the church of St. Germain, Auxerrois) and a sharp elbow taken up past the Louvre and Tuileries Gardens to the corner of the Place de la Concorde ; the latter section was precisely on the line of the present Rue de Rivoli, whose conception as well as execution is frequently credited to Napoleon I. The practical necessity for this great cross road, augmenting and rectifying the original Roman road, was undeniable, but the sharp angle round the Louvre, purely in order to obtain a monumental vista, was barely justifiable. It was not until the Haussmann régime that this difficulty was overcome.

There are, however, many suggestions of the Commission that have been exactly carried out : the connection of the Place Vendôme to the Rue de Rivoli by the Rue Castiglioni, and to the Boulevard des Capucines by the Rue de la Paix ; the Pont de Jena, the Rue Soufflot leading up to the west front of the Pantheon and the Rue d'Ulm and Valette leading up to the transepts (the fourth cardinal street has not been carried out) ; the Boulevard Bourdon from the River to the Place de la Bastille ; the enlarged market space for Les Halles. The vista approach to St. Sulpice has unfortunately not been carried out, but the Place St. Sulpice has.

The width of streets and proportional height of buildings are also taken into account by the Commission ; streets are divided into classes according to width, the largest of 14 metres, the narrowest of 6 metres.

Cross roads are provided with circular places ; in a word, modern Paris is here foreshadowed, with its wide straight streets, at once suited to traffic circulation, hygiene and artistic appearance.

The Republic had no time to carry out these suggestions which received the approbation of the Assembly of the "Ponts-et-chaussées" conjoined with that of the "Bâtiments civils." It was left for Napoleon I. to begin in actuality the first works of Modern Paris. But this plan of the Artists remains as an important landmark in the study of town planning and became the inspiration for the future growth of Paris.

Paris under Napoleon I.

The plan by Maire, published in 1808, shows how much Napoleon had carried out during the Consulat and the four years of his Emperorship. Most of this achievement had been suggested by the Commission of Artists. The Rue de Rivoli is carried from the Place de la Concorde as far as the Place du Carrousel, where it remained until completed by Haussmann ; the Rue Castiglioni and the Rue de la Paix are carried out, so is the Luxembourg end of the avenue of the Observatoire—the rest is shown dotted. The Boulevard Bourdon and the Pont St. Louis are constructed, the Pont des Jena on the axis of the Champs de Mars and the approaches to the Pantheon and the Val de Grace are still only projected. But additions to the Voirie or road system of Paris was by no means Napoleon's greatest contribution to its growth. His genius rather ran to two extremes, colossal monuments and works of severely practical utility which hardly appear on a plan. The monuments were the great Arc de Triomphe (not completed till 1835), the smaller Arc de Triomphe du Carrousel (designed as a gateway to the Tuileries Palace), the Colonne Vendôme, the Madeleine, the Bourse, and the new façade to the Chambre des Députés. The greatest monument of all, the Palace for the Roi de Rome, projected for the Montaigne de Chaillot, on which the Trocadero now stands, was never begun ; architects will always regret that the great opportunity of those great architects of the Empire, Percier and Fontaine, was never realised.

The severely practical works consisted in the improvement of the water supply by bringing the waters of the Ourcq into the city ; the beginning of the Canal de St. Martin, the construction of sewers under the Rue de Rivoli, the Rue St. Denis and the Rue Montmartre, the systematic treatment of the quais along the Seine banks, such as the quais D'Orsay, des Tuileries, Debilly, and those round the eastern end of the Ile de la Cité. Added to these, there were two other bridges, the Pont d'Austerlitz, just below the basin of the Canal de St. Martin, and the Ponts des Arts,

the charming foot bridge which connects the central feature of the Old Louvre with the Palais de l'Institut. Napoleon also began the northern wing to connect the Tuileries with the old Louvre, but he did not carry it more than half-way and left the outer quadrangle still encumbered with houses.

Between the Empires

During the two monarchies from 1814 to 1848, the plan of Paris was not entirely stationary; it was a period of transition during which, many of the operations undertaken before were carried forward. Such for example, the beginning of the Boulevard de Malesherbes to balance the Boulevard de la Madeleine on the opposite side of the Rue Royale, and the completion of the Avenue de l'Observatoire. The Rue de Rambuteau, suggested by the Artists, was now constructed, running from Les Halles to the Hotel des Archives and many other streets of secondary importance. Several new bridges were added, including the important Pont du Carrousel. A good deal also was done in the way of improving the levels and finishings of many of the boulevards and quais. A certain amount of restoration was necessary, as each revolution, which was apparently necessary to usher in slight changes of dynasty, had cut down trees and rooted up pavements.

In fact, the actual sum spent by Louis Phillipe, upon works which were begun by Napoleon, was between five and six million pounds; little of this represents new schemes and the greater part of the credit for them is given to Napoleon. Louis Phillipe was a dull man, but he was not ungenerous; he was content to carry on what a more brilliant mind than he had conceived, and he was broadminded enough to replace a statue of Napoleon on the Colonne Vendôme in place of the monstrous Fleur de Lys put up by Louis XVIII.

But the great event of this period was the advent of the railways. Not that they produced at once any corresponding display of town-planning ability—for the most part the terminals were dumped down at hazard, without any relation to the rest of the city, even as they were at London, but fortunately they did not penetrate into the centre or cross any of the monumental parts of the city—above all, they were not carried across the Seine as has happened so lamentably in London. In one instance, however, an attempt was made to treat these terminals as the new gateways of the city, taking the place of the old "Barrieres"—the Boulevard de Strasbourg was constructed to form a direct approach from the Gare de l'Est to the Boulevard St. Denis, which then related it east and west of the whole city; this was completed in 1852, the year before Haussmann began his work, and the credit of its conception is due to the

Prefet Berger who had worked for Louis Phillipe—it was perhaps the one original departure of the period, and it must be borne in mind that it is still, though 60 years old, without an imitator in London.

Napoleon III. and Haussmann

Before entering the last and most important phase of Parisian growth, it is worth while examining to what degree of town planning efficiency the city had arrived. At first blush it would seem, so many well-known landmarks and features having been already described as in existence, that it was complete, and that there was little left for Haussmann to do—the most famous parks and gardens, the great tree-lined avenues, the principal monuments and vistas, the Grand Boulevards and the boulevards extérieurs, the Rue de Rivoli, the Place de la Concorde—surely these are Paris itself, and it is difficult to conceive of it looking very materially different from now. But all these are the set pieces, the salient points in the picture; it is as though an artist had collected all the studies which he had made for a picture and had pinned them on to a rough piece of canvas; in describing the finished picture, you would probably mention all the points which had appeared in the studies, because the infilling and welding together is hardly describable. So it was with Paris—between these noble points were crooked streets, tumbled-down houses; someone has described the effect as that of a series of examples of different styles and features thrust down at hazard. The courtyard of the Louvre was full of houses, the Arc de Triomphe was set in an irregularly shaped place, half cut off by a shabby Barrière wall, with a few gaunt trees and dubious houses in proximity; it was possible to glance on to the fountain in the Place du Chatelet, from a narrow alley obfuscated with stairs; one end of the Hotel de Ville butted on to the Rue de la Tixeranderie, but six or eight feet below its level. Round this central spot, the site of the original cross roads, now hopelessly obliterated, was the very black hole of Paris—streets so narrow that a wooden-plaster house falling forward, could only lean against its opposite neighbour. “Et quelle population habitait là!” says Haussmann. Fortunately we have a record of Paris at this period in the splendid etchings by Martial, and though this jumble of grand monuments and picturesque squalor gave fine objects for an artist, it was an unsanitary makeshift for the ordinary town dwellers.

What was required, was a man who could appreciate the value of what his predecessors had sketched out, grasp their general intentions, and complete the work which they had begun; first and foremost traffic circulation required providing for, not in a sporadic manner, but consider-



PLAN SHOWING THE EXTENT OF HAUSSMANN'S OPERATIONS

PARIS

ing the city as a whole. This would bring in its train sanitary improvements, light, air, the rebuilding of slum quarters, and the freeing and providing of settings for public buildings. In Haussmann, Napoleon III. found the man and he himself supplied the necessary impetus and tyrannical power to carry the work through. Napoleon was perhaps chiefly actuated by hygiene, and Haussmann by a desire for a logical traffic plan and magnificent effects. London, where he had lived, was Napoleon's inspiration; singular irony that the original desire to re-model Paris came from London, which can scarcely be said to have made the slightest systematic attempt to re-model itself during the same period! What Napoleon admired were the cleaner streets, the water supply, the sewers, and the size and number of parks and gardens near the centre. Haussmann, who did not know London, had ideas which went far beyond those of his master.

The Emperor had also another idea in his head: in proposing to cut straight roads through the closely built-up town and afford direct communication from one part to another, he aimed at controlling the town by a military force more easily: artillery could rake the whole length of these broad streets, barracks could be given direct access on to them, and they were poorly suited for the erecting of barricades. It was, says Haussmann, the disembowelling of old Paris, of the quarters of uproars and barricades. The other incentive towards town planning was, as already hinted, the advent of the railways and the sudden outpouring of traffic at new points, upsetting the balance of the streets. Plate 110 gives some idea of the enormous amount of this reconstruction, this filling in and completing of the canvas worked upon by Haussmann's many predecessors.

The New Grande Croisée

The credit for the reconstruction of the Grande Croisée is certainly due to Napoleon III. himself, if it does not go even further back to his uncle's beginning of the Rue de Rivoli and Berger's Boulevard de Strasbourg. What the Emperor suggested was the simple prolongation of these two streets until they met at right angles somewhere in the neighbourhood of the original crossing. The Rue de Rivoli was then to be prolonged until it hit, some distance beyond the Hotel de Ville, the wider and straighter part of the Rue St. Antoine, which thus still remained the eastern arm of the cross roads (see p. 115, No. 2, Vol. II). The new Boulevard du Centre as it was originally called (now de Sevastopol) carried on the direction of the Boulevard de Strasbourg, midway between the old Rue St. Denis and Rue St. Martin. This cutting through of the new street instead of widening the old, was typical of Haussmann's method. He was criticised for this at the time, as there existed a law of alignment

instituted by Napoleon I., which forced such narrow streets to be widened as they were gradually rebuilt. But, as he pointed out, the progress was terribly slow, the law was circumvented continually, and indemnities were paid in spite of powers of compulsion; so that he left the old streets to be widened as best they could under the law, and boldly cut his new broad boulevard through property which did not demand such high compensations. The termination of this boulevard, the centre line of Paris, by the Gare de l'Est well illustrates the new importance of the railway stations as the portals of the modern city.

Unfortunately the Boulevard de Strasbourg had been plotted on the old piecemeal method, and when it came to be prolonged to the river it just missed the Pont au Change; the resulting slight looseness of articulation which is illustrated on Plate 114, is enough to indicate the difference between the older method and Haussmann's exact logic.

Across the Seine, he realised that the cross roads must be continued on a similar scale, and so constructed the Boulevard St. Michel. Thus was the original Roman Cross Roads, made again the key-note of the plan of Paris.

The Boulevard St. Germain and the General Schematic Plan

Perhaps Haussmann's most brilliant logical stroke was the Boulevard St. Germain. He realised that the Grand Boulevards needed a complementary ring on the south side, and that Bullet and Blondel's wide sweep was quite wrong. In order to complete it at the eastern end, he had to take a line diagonally across the Seine and the Ile St. Louis to hit the Place de la Bastille (by the Boulevard Henri IV.). For a long time Napoleon opposed this diagonal crossing of the Seine, but eventually Haussmann had his way; but the Emperor was so far justified in his opposition, in that this section has remained the least used of all the inner ellipse of boulevards.

M. Eugène Henard has drawn a most interesting schematic diagram, showing the theoretic system of Haussmann's street plan, which can be compared with the actual arrangements. The duplicating of the outer boulevards on the south side will be noticed, owing to the faulty earlier planning. A great feature is the introduction of strongly-marked diagonals; the Rue Lafayette already partly existed, but the Boulevards de Magenta, Haussmann, and Voltaire were original; the Boulevard de Malesherbes had been begun, but was completed by Hausmann; M. Henard for some reason omits it from his diagram.

The most remarkable thing about this plan of Paris is its amazing symmetry, particularly with regard to the four great Places along the central line—Etoile, Concorde, Bastille, and Nation.

Rue Castiglione

Rue St.
Honoré

Rue St.
Honoré



Rue de la Paix

PLACE VENDÔME

Boulevard Haussmann



Boulevard des
Capucines

Rue Lafayette

Boulevard des
Italiens

Rue de
la Paix

Avenue of the Opera

Rue du 4 Septembre

THE OPERA

PARIS—Bird's Eye Views

Avenue de l'Opera

It has been said that the great set pieces of Paris were erected before the Haussmann period. To this one exception must be made—the Avenue of the Opera was his one original piece of monumental town planning, and it is certainly second in importance only to the Avenue des Champs Elysees. What he found already done was the Rue de la Paix entering the Grand Boulevards—the section known as the Boulevard des Capucines—at an angle of 45° . In the first batch of street undertakings Haussmann had occasion to draw the line of the Rue Reamur which led past the Bourse, opening up that fine building of the First Empire, and running parallel to its main axis; this street continued to the Boulevard des Capucines, hit it at the same point and almost the same angle as the Rue de la Paix. It was therefore a natural site to find for the Opera, set a short distance back from this triple intersection, and it followed inevitably to provide it with an avenue of approach at right angles to the Grand Boulevards and bisecting the angles formed by the two entering streets. The avenue at its other end opened up a place in front of the Theatre Français at the corner of the Palais Royal, and so on to the Louvre and Place du Carrousel. The Opera was to be the great festive centre of the Second Empire, it was its finest building set at the head of its finest vista. In this instance Haussmann wisely refrained from tree-planting, the uninterrupted view of the gorgeous building being more important than the momentary comfort of the pedestrians. The placing of the Opera itself was managed with the greatest skill, and it is perhaps the best instance of a building placed at the head of a street without blocking the through traffic which is skilfully guided round it.

Other Vistas

The Avenue of the Opera is the climax and highest achievement in the monumental effect which Haussmann employed wherever he could. Straight wide streets being a necessity from traffic and circulation necessities, it was felt that some compensation must be given for the comparative tediousness of these streets. In the old town the interest was continually kept up by the turns and various widths and interest of the individual buildings; the modern counterpart to this varied interest was a great monumental building at the end on which the eye could continually rest. It did not matter then if the buildings lining the streets were plain or even monotonous—this merely enhanced the richness of the monument on which all attention was focussed. The vista with its axial monument and avenue, of course, was originated by the garden architects of Louis XIV., and was largely made use of by Wren in his London

design. Haussmann made it the normal effect of Paris ; when laying down the line of a new important street he either tried to bring it into vista with some existing building or provide one for it. One of the reasons for the slanting Boulevard Henri IV. to which Napoleon III. so violently objected, was the fact that it provided a double vista towards the Colonne de Juillet on the Place de la Bastille, and the dome of the Pantheon. The direction of the Boulevard de Sevastopol not allowing it to centralise on the Fountain in the Place du Chatelet or the dome of the Sorbonne, Haussmann persuaded the architect of the Tribunal de Commerce to place his dome to that end, at the price of an æsthetic heresy, as a French writer has observed. The change in axis of the Pont St. Michel and the Boulevard St. Michel he made the occasion for two effects : the Pont is provided with the famous Fontaine St. Michel on its axis, and the boulevard was so directed that the fleche of the St. Chapelle closed its vista. There are many other vistas, some originated by him, others already begun but requiring logical completion : The Rue Soufflot leading up to the Pantheon, the opening of the Rue du Louvre to the Bourse de Commerce, the Boulevard de Malesherbes and the Church of St. Augustin, the approaches to the railway stations, the Boulevards de Strasbourg and Sevastopol to the Gare de l'Est, the Boulevard de Denain to the Gare du Nord, and the Rue de Rennes to the Gare Montparnasse.

The Place de l'Etoile and District

The Place de l'Etoile and the district surrounding it, Haussmann practically created. The Place he found traversed by the main axis of the Champs Elysées, and entered at the centre of one side, at right angles to this, by the Boulevard Extérieure. On the other side the boulevard entered irregularly, and there were several smaller streets arranged at a venture. Two important new entering streets had to be provided, the Avenue de Friedland, a continuation of the Boulevard de Haussmann, and on the opposite side of the Place a direct connection with the Bois de Boulogne ; finally a connection was necessary with the Parc de Monceau. The ingenious way in which Haussmann, in conjunction with his brilliant town-planner, Dechamps, arranged this place, with its eight single houses and four double, may be judged from the view (Plate 113). The Avenue du Bois de Boulogne (120 metres) widens out soon after leaving the Etoile, and is planted on either side in order to form as it were an arm of the Bois ; this is perhaps the earliest example of a park-way. The Avenue Kléber, on the main cross axis, is practically on the site of the former Boulevard Extérieure, and leads to the Place du Trocadero. The circular road at the backs of the houses was made with the object of relieving the central place on any occasion

Rue du Faubourg St. Honoré

Boulevard Malesherbes

Champs
Elysées

Rue Royale

Place de la
Concorde

Rue Tronchet

Boulevard des
Capucines



Rue de Rivoli

Rue St. Honoré

THE MADELEINE

Avenue de la Grande Armée

Avenue Carnot

Avenue Mac-Mahon

Avenue du
Bois de
Boulogne

Avenue
Victor Hugo

Avenue de
Wagram

Avenue Hoche



Avenue de Jéna

Avenue Marceau

Avenue des Champs Elysées

Avenue Friedland

PLACE DE L'ETOILE

PARIS—Bird's Eye Views



THE CHAMPS DE MARS FROM THE TROCADERO



PLACE DU CHATELET WITH THE BOULEVARD DE SEVASTOPOL
TAKEN FROM THE TRIBUNAL DE COMMERCE

PARIS

of especial crowding. The re-creation of the Place de l'Etoile, the tree planting, the road arrangement, and the architectural treatment, is one of the most successful of Haussmann's works. It was carried out in a way that would have satisfied a Louis XIV. garden architect.

Other Works of Haussmann

It is not the intention of this short study to deal minutely with Haussmann's work, considering it according to the *Reseaux* or groups of streets that were dealt with—this would need a highly technical article to itself. When we have obtained legal powers in this country to deal with the built-up portions of our towns, even as we have with the unbuilt, an exact study of Haussmann's methods and achievement will be of the utmost value. It will suffice for the present purpose to mention merely some of the other works. There was a complete new system of sewerage; the enlargement of the Halles Centrales (markets) already suggested by the Artists' Commission; the destruction of the *Mur d'Octroi* of Louis XVI. and the turning into the city proper of the spaces between these boulevards extérieurs and the outer fortifications (the whole of this gigantic encircling area was cut up and tree planted); a complete system of main radial routes leading out of the city; the covering in of part of the Canal St. Martin, to form the wide Boulevard Richard Lenoir; besides these there were the numerous streets and boulevards of varying importance, the general positions of which may be roughly made out from the plan reproduced on Plate 110; of these perhaps the group round the Place de la Republique need special mention.

One's first impression perhaps, on studying Paris, is that Haussmann did not do so much as one had thought, but on a closer view, it appears to be incredible that during the space of little more than fifteen years he could have accomplished such a colossal amount. The finance of it is sufficiently amazing. The original expenditure contemplated in 1853 was about $5\frac{1}{2}$ millions sterling, it was shortly after raised to $7\frac{1}{2}$. The actual cost of execution of the schemes so far as they were contemplated during the reign of Napoleon III. was $49\frac{1}{2}$ millions! Haussmann had a principle which he called "*Depenses productives*" by which he demonstrated that the more one spent, the more one got in return. And certainly though at the time of Napoleon III.'s downfall, he appeared to have indulged in hopeless extravagance, he has since been fully justified, and the city at large has recouped itself many times over for the enormous outlay.

Parks

The comparison of an area in central London of the same size as that enclosed by the outer fortifications of Paris (see plate 109) shows that

Napoleon did not go very far in his admiration of London in the direction of open spaces. Actually only two small new parks were added, the Buttes Chaumonts and the Montsouris, both situated in the outer circle that was incorporated by the destruction of the Mur d'Octrois. Their combined area is only about 100 acres. The total average of the London parks within this imaginary limit is about 1,880 acres, of the Paris parks only 657, and in addition to this it must be borne in mind that the population of Paris for this area is twice as dense as that of London.

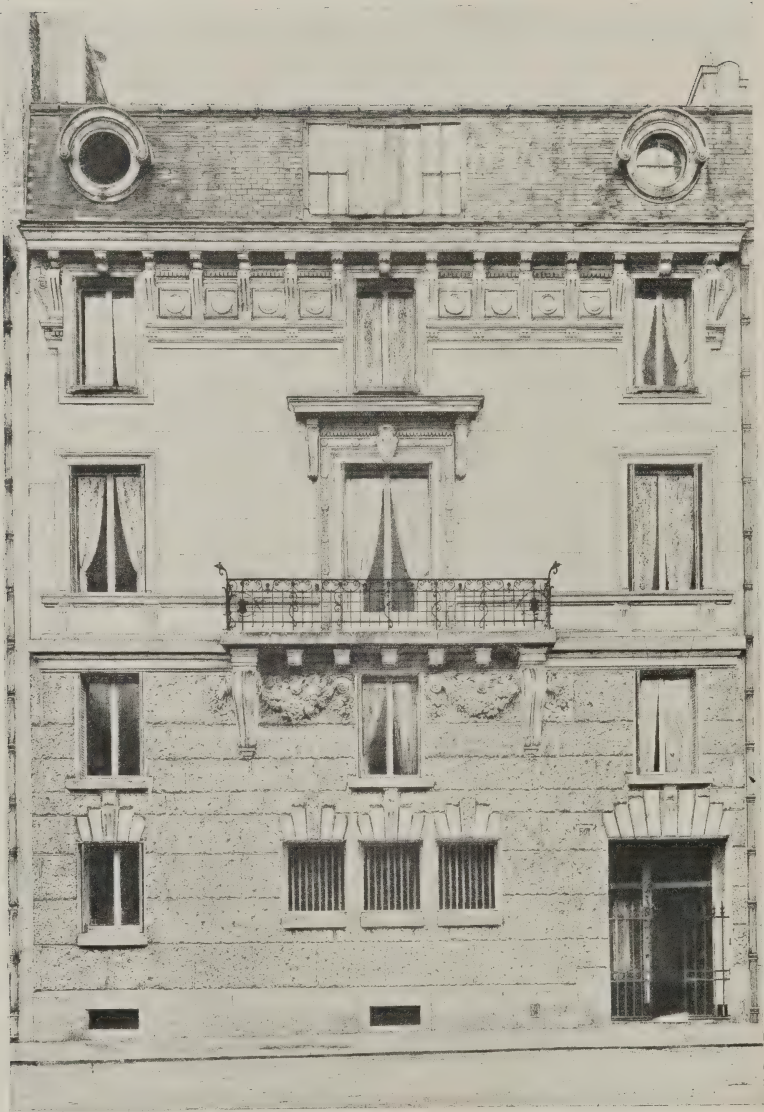
Of course if an area sufficient to include the two great woods, Bois de Boulogne and Bois de Vincennes, were taken in, Paris would easily outstrip London for a similar extent; but as Haussmann himself has pointed out, these two splendid "promenades" are not able to be made use of by the population at large without the expense of transport. He did his best to make them more accessible from the centre by means of the Avenue du Bois de Boulogne, and the Avenue Daumesnil, but he could only succeed in making them Sunday or holiday parks to the majority of the population.

One thing, however, must be confessed, if the open spaces of central Paris are small in extent, extraordinarily good use is made of what she has, entirely owing to skilful town planning. If it is realised that the value of open spaces is as much mental as physical, it will be seen how important this effective use of them is. One great cause of this apparent extent is in the connection by means of tree-planted streets. The exclusive London squares, which must have struck Napoleon III., were translated into the democratic boulevards of Paris, and the trees were placed in public as at the Place du Chatelet and de la Republique. The former (Plate 114) well illustrates the mass of foliage which appears in reality, and which is increased in effect by being carried on by the Boulevard de Sevastopol, the latter, it may be mentioned in passing, is a purely commercial street like our Oxford Street.

Few people realise how thin is the connection between the Champs Elysées and the cluster of trees round the Arc de Triomphe. Plate 93 in the last number of the *Review*, well illustrates the apparently vast extent of the Tuileries and Champs Elysées; the eye is led to believe by means of the tree-planted central vista, that the park extends to the Arc de Triomphe on the horizon.

Paris, in fact, is the great example of the economic value and use which skilful town planning extracts out of every inch of the city, and of the way in which it can be worked into an effect of civic beauty.

PATRICK ABERCROMBIE.



No. 36, BOULEVARD DES INVALIDES

Mewès, Architect

Paris

PARIS

Some Examples of Street Architecture

We have already contended that Town Planning cannot be considered irrespective of elevation and that overmuch emphasis of the mere plan is apt to detract from the real result—the elevation.

As opportunity offers we hope to illustrate examples of the best types of modern buildings which essentially make up street architecture. To this end it would be useless to show beautiful show-places—the sort of thing we cannot help photographing when we are abroad—corners of Rothenburg and Ulm, the gorgeous houses in the Grand Place at Brussels, the fortress palaces of Italy, or the delicate Gothic of the house of Jacques Cœur in Bourges—rather do we intend to be prosaically practical and only illustrate what is exactly suitable for modern needs.

The accompanying plates are taken from a phase of Parisian architecture which deserves more recognition than has been meted out to it in this country. Roughly speaking, in date it corresponds to the duration of the present Republic up to the close of the last century. This is, of course, only a very arbitrary period as many of the architects of the works illustrated, were practising during the second empire and many are alive to-day. But there is no doubt that French architecture has undergone a complete change during the present century, and that this phase represents the tradition which Haussmann and his group of architects established, carried a step further in the matter of refinement and scholarship. Several of the names of these architects are well known—M. Pascal whose Ecole de Medecine and Palais de Justice, of Bordeaux, and addition at the Bibliotheque National are famous, M. Mewès familiar to Londoners as the joint architect of the Ritz Hotel and the Morning Post building, and M. Guadet, the late Professor of Theory at the Beaux Arts.

Their work exhibits Parisian street architecture at its best—its studied simplicity, the continuity of its wall surfaces, the refined scholarship of its details. A comparison with the house fronts which are being built in Paris to-day will show at once the change which has come over French design—curved-wall surfaces, oriel windows running through four storeys, and more restless detail characterise the recent work, many examples of which may be seen round the Champs de Mars.

The examples we illustrate are also valuable in that they show what results may be obtained without recourse to the full diapason of the architect's equipment—the use of a main “order.” Many people think

a building is not complete unless it exhibits a row of Ionic columns running through several storeys. These buildings show that it is not necessary—or rather that it is much better that the façades lining the streets shall be expressly treated in the simpler (and it may be added, less costly) manner, and the full resources of the architect reserved for public buildings.

The plates which we reproduce are selected specimens from the admirable folio entitled “Hotels et Maisons de Paris,” by Monsieur P. Gélis-Didot. This work, published by Messieurs May & Motteroz [Ancienne Maison Morel], contains 100 plates, which together form a valuable collection of modern urban architecture.



No. 28 BOULEVARD MALESHERBES

Paul Sedille, Architect

Hotels et Maisons de Paris



No. 13, RUE VERNET

Paul Sedille, Architect

Hotels et Maisons de Paris



CORNER OF AVENUES DE SEGUR AND DE SAXE

P. Gélis-Didot and T. Lambert, Architects

Hotels et Maisons de Paris



No. 105, RUE NOTRE-DAME-DES-CHAMPS

Pascal, Architect

Hotels et Maisons de Paris



No. 125, BOULEVARD MONTPARNASSE

Breasson, Architect.

Hotels et Maisons de Paris



12. AVENUE DU TROCADERO

Breasson, Architect

Hotels et Maisons de Paris



No. 240, BOULEVARD ST. GERMAIN.

Guadet, Architect.

Hotels et Maisons de Paris

THE PROGRESS OF THE TOWN PLANNING ACT.—II.

In the fourth number of the first volume of the *Town Planning Review* there appeared an article under the above heading, dealing with the progress which the Act had made during the first year of its existence ; there is now a second year to be chronicled, and it is satisfactory to be able to put on record very much more definite action. When the first article was written no local authority had actually obtained authority to prepare a scheme, though shortly afterwards, by the time of the Liverpool Conference, which was held in February of last year, three Town Planning schemes had passed the stage of having an enquiry held by the Inspector of the Local Government Board, who had subsequently given authority for their preparation ; these were the two Birmingham areas and the Ruislip-Northwood scheme.

In November last year a White Paper was laid before the House of Commons relative to the Housing and Town Planning Act, and this statement showed that the 30 or so possible schemes mentioned in our former article had materialised into a certain number of schemes, while there were a large number of additional authorities mentioned who, it was pretty well certain, would be embarking on schemes before very long.

The following is an extract from the Memorandum, classifying the authorities according to the stage which they have reached ; we quote it at length, as it marks another step in the progress of the Act :—

(a) In eight cases the Board have given authority for the preparation of schemes, viz. :—

Birmingham Corporation.—An area of about 2,320 acres in Quinton, Harborne, and Edgbaston, in the city, and in the part of Northfield in the Urban District of King's Norton and Northfield added to the city as from 9th November, 1911.

Birmingham Corporation.—An area of about 1,442 acres in the parish of Aston, in the eastern part of the city.

Ruislip-Northwood Urban District Council.—An area of about 5,906 acres in the urban district and in the parish of Rickmansworth (rural) in the rural district of Watford.

North Bromsgrove Urban District Council.—An area of about 554 acres in the urban district.

Rochdale Corporation.—A small area of about 43 acres in the borough.

Chesterfield Corporation.—A small area of about 64 acres in the borough.

Oldbury Urban District Council.—An area of about 1,763 acres in the Warley portion of the urban district.

Bournemouth Corporation.—An area of about 202 acres in the Boscombe East and Southbourne Wards of the borough.

In one case, that of an application from the Corporation of Rochester relating to a very small area, the Board were unable to give the authority asked for as the land was for the most part held by the Secretary of State for War, and being Crown lands could not be included in a Town Planning scheme.

(b) The Board have before them at the present time two applications for authority to prepare schemes, viz. :—

Hanwell Urban District Council.—An area of about 198 acres in the urban district.

Liverpool Corporation.—An area of about 88 acres near the eastern boundary of the city.

(c) The preliminary notices have been given under the regulations by the following 11 local authorities, with a view to application being made to the Board for authority to prepare or adopt schemes, viz. :—

Barrow-in-Furness Corporation.

Ellesmere Port and Whitby Urban District Council.

Finchley Urban District Council.

Huddersfield Corporation.

Middleton Corporation.

Nelson Corporation.

Newcastle-upon-Tyne Corporation.

Sheffield Corporation.

Sutton Coldfield Corporation.

Twickenham Urban District Council.

Willesden Urban District Council.

(d) In 22 other cases the information available would seem to show that the consideration of the matter by the local authority has reached a stage practically equivalent to a decision to proceed with a scheme, viz. :—

Acton Urban District Council.

Barnes Urban District Council.

Beckenham Urban District Council.

Blackburn Corporation.
Cleckheaton Urban District Council.
Croydon Rural District Council.
Greenford Urban District Council.
Grimsby Rural District Council.
Halifax Corporation.
Hayes Urban District Council.
Kingston-upon-Hull Corporation.
Maldens (The) and Coombe Urban District Council.
Merton Urban District Council.
Middlesbrough Corporation.
Portsmouth Corporation.
Sedgley Urban District Council.
Southall-Norwood Urban District Council.
Southport Corporation.
Stockport Corporation.
Surbiton Urban District Council.
Walthamstow Urban District Council.
Warrington Rural District Council.

(e) In numerous other cases the Board are aware either from correspondence or interviews with other officers, that the question of preparing a scheme is under consideration, and the following 22 local authorities may be mentioned in this connection :—

Birkenhead Corporation.
Bushey Urban District Council.
Carshalton Urban District Council.
Coventry Corporation.
Croydon Corporation.
Enfield Urban District Council.
Epsom Urban District Council.
Esher and the Dittons Urban District Council.
Hale Urban District Council.
Hendon Urban District Council.
Herne Bay Urban District Council.
Hessle Urban District Council.
Irlam Urban District Council.
Leek Urban District Council.
Little Crosby Urban District Council.
Newport (Mon.) Corporation.
Northwich Urban District Council.
Richmond (Surrey) Corporation.
Rotherham Corporation.

Southgate Urban District Council.
Stoke-on-Trent Corporation.
Stretford Urban District Council.
Sutton (Surrey) Urban District Council.
Tynemouth Corporation.
Wakefield Corporation.
Wallsend Corporation.
Wembley Urban District Council.
York Corporation.

Since this Memorandum was made the Hanwell and Liverpool schemes have passed into Class (a), authority having been given for their preparation, and enquiries have been held into the Sheffield and Newcastle-on-Tyne schemes which have therefore passed into Class (b).

In addition to those names given in the Memorandum, there are several schemes which have been heard of, but which have apparently not entered as yet into touch with the Local Government Board; the Borough of Swansea was mentioned in our former article as having an area under consideration, so also the Urban District of Atherton, near Manchester. Again, in Volume 1, No. 2, of our *Review* we gave particulars of suggested schemes by the Urban District of Hipperholme, near Halifax, and Great Crosby, near Liverpool, neither of which appear in the official list; possibly, the Hipperholme scheme has become absorbed in the Halifax, particulars of which we have not yet received, and we understand that the Great Crosby scheme is not at present being proceeded with. But these few are at any rate indications that the progress of the Act may be greater even than the Memorandum indicates, satisfactory though this is.

It is interesting to note that some of our greatest towns are taking up the Act with thoroughness. Birmingham has its two schemes, comprising in all 3,762 acres; Sheffield has three schemes, with a total of 1,121 acres, and it is intended to proceed with other schemes when these are launched until practically the whole of the unbuilt-on land in the borough is included (this amounts to some 15,500 acres); Liverpool has so far merely attempted a small area of 88 acres, but this, we understand, is rather in the nature of an experiment, and we hear rumours of large areas under consideration. Manchester appears to be considering the main roads in its district preparatory to selecting areas to deal with under the Act.

In the present number of the *Review* the group of schemes in the neighbourhood of London have been gone into with some detail, and it is the intention to give notes from time to time on other schemes

which contain points of interest. Sheffield, it is hoped, will be treated of in an article to itself, similar to those which have appeared on Birmingham and Middlesbrough. The Middleton scheme is interesting because it has been promoted by an owner, the Stockport because it deals with large areas in the surrounding districts; the Liverpool and Hanwell schemes illustrate the desirability of preserving the gardens and trees attached to groups of existing houses, by reason of the benefit which they unconsciously confer on the surrounding neighbourhood.

In the case of the Liverpool scheme (Plate 123), the existing Oakhill Park will be almost certainly re-built in the near future, as the present houses are too large for the district, and the point is what character that re-building is to take. The usual 40 houses to the acre would probably be attempted by speculative builders as a fairly safe thing and the easiest way of dealing with the site, which would be simply swept bare of trees. But it would be quite possible to re-develop this park, pulling down the old large houses, and working in smaller, say, semi-detached and four group, while at the same time preserving the general character of the neighbourhood. Furthermore, one of the new main radial roads of the Liverpool Corporation, Edge Lane Drive, traverses the area, though the Oakhill Park is cut off from it by its boundary wall; any re-developing of the park, therefore, should be taken in conjunction with this wide, tree-planted street—the park wall would disappear, and the whole would be treated in a manner fitting to the frontages on a great main approach to the city. Finally, the land between the Edge Lane Drive and the railway is geographically part of the same area, and though at present entirely undeveloped, it must naturally be considered in conjunction. The net result of the Town Planning scheme would probably be to prevent the building of the smaller type of houses in the area, and the question was asked in the enquiry whether it was desirable to use the Act for such a purpose; but it was shown that there is a great amount of property of the smaller types in the neighbourhood—in fact, an over-supply, many houses standing vacant—and it was also shown that the tree-lined circular road of the Oakhill Park formed, as it were, a promenade for the actual inhabitants of these smaller houses, who would be the losers if the character of this oasis were destroyed. Of course, the question as to whether the low rental house might still be built on this area on garden suburb lines, depends upon the price of the land.

This scheme and many others offer suggestions to local authorities who may be contemplating taking action, and who have areas within their districts to which these and similar benefits might apply.

Turning to the general progress of the Act itself, it is worth noting

that the two schemes which have been authorised by the Local Government Board contain an aggregate of about 12,580 acres ; allowing an overall average of 12 houses to the acre (open spaces and large houses being considered to counterbalance certain areas where up to 20 to 25 houses were permitted), this would provide sites for 150,960 houses, and with an average of 4·5 inhabitants per house, this gives a possible future urban population of 679,320, housed under conditions which, so far as human knowledge can go, could not be improved upon. Again, if we take for granted that the eleven authorities who have been given their preliminary notices, receive in due course authority to prepare their schemes, it can hardly be rash to allow an equal estimate to the first 10 ; this, then, will give us a possible population of over $1\frac{1}{4}$ millions, and it must be agreed that this is not dealing with insignificant figures. Of course, it may take some years for these areas to be fully built up, but it must be borne in mind that all the land included in a scheme is *likely to be used for building purposes* in the near future, and it is more than probable that by the time of the next census, 10 years hence, a considerable percentage of this number will be living on these areas ; to them may be added the dwellers on those areas which it is to be supposed will continue at this rate to swell the number of Town Planning schemes. Another thing must be borne in mind ; it must not be thought that the possible population of these town-planned areas are entirely additions to the population ; it is probable, and it is also to be hoped, that a considerable proportion of them will represent an exodus from the more crowded parts of the cities near which these areas are situated. The decline in the population of the County of London, therefore, may be followed by a similar declension in the central parts of other cities, to the general benefit of the nation at large.

The second part of the procedure has yet to be undertaken, but if its difficulties prove no greater than those of the first, and these schemes are put in actual operation, there can be no doubt but that the Act will be exercising a very appreciable effect upon this country. It will not, of course, do away with existing slums, and it will not altogether prevent the creation of new ones in certain places, but it will reduce their number, and provide efficient rivals to them ; it will also help to preserve much of the beauty of Nature which is now ruthlessly destroyed ; lastly, it will have a marked effect upon the physique and health of the nation.

P. ABERCROMBIE.

REVIEWS OF CURRENT PERIODICALS AND NEW BOOKS

The Width and Arrangement of Streets

By Charles Mulford Robinson

The Engineering News Publishing Co., New York

Temerity born of inability to cast to one side the old clothes of habitual practice is common to all humanity. The arguments so ably set forth in this book for a rational and natural adoption of street to every kind of circumstance must shake the confidence of many responsible for the administration of existing by-laws.

So habituated have we become to adjust the width and arrangement of our streets, merely by reference to a code of law, so irretrievably has thirty-five years of by-law practice unfitted us for an intelligent appreciation of the natural requirements of streets, that a book like this, written by an open-minded American unfettered by a circumscribed training and whose views are formulated on broad and natural convictions, comes at the early stages of Town Planning with remarkable aptitude.

We quote one passage which contains the gist of the work. Speaking of the classification of streets, he says: "Differences have thus been based, not on the kind of service, but on its quantity. Accordingly standardisation attempts have been unsatisfactory. It is difficult to standardise the degree of a street's service, and in fact we have seen one grade of streets soon merging into another. Then we discover that we have set up arbitrary standards, and that if there be nothing to fix and hold the character of a street, it tends to change. The traffic changes with it; the old standardisation breaks down; the original adjustment in structure and proportion becomes unsatisfactory."

He very ably, by comparison of examples, shows how very artificial are the standards of street plotting. In referring to lengths of streets without cross streets, he shows that whereas in New York, which is one of the busiest cities in the world, and which has much valuable property off its main streets, that here many of the blocks are more than 900 feet in length, whereas in a quiet English suburb they are not allowed to be more than 450 feet.

In his chapter on "Street Width and Housing," he shows how dependent is rent upon street plotting and the advantage of the narrow street and the wide garden: a matter of all importance to the Town Planner.

His chapter on "The Development of High-class Minor Streets" is of especial interest. We extract one quotation. After discussing the relative merits of broad grass-bordered and narrow side walks, he says: "For all the pleasantness of these arrangements, however, we may well ask ourselves, considering how greatly private property is to contribute to the beauty of the street, considering the advantage of economy in the public work, and the diversity of country to be developed, whether there is any reason why there should invariably be two sidewalks. We may even ask whether, when the roadway is adequately drained and so paved as to be not less dry than a walk, there may not be spaces where a separate walk may be dispensed with altogether."

The examples quoted and the illustrations are always to the point and are drawn from a wide area. Altogether this is by far the best work yet produced on this important subject, and we strongly urge all those who have any interest in the economics, the natural development and the larger view of what may be attained by Town Planning to acquire and carefully read this book.

S. D. A.

London Houses from 1660 to 1820

By Richardson and Gill

B. T. Batsford, 94, High Holborn, London

We feel that a time will arrive when the Suburban resident, dependent upon the centrifugal influence of train and tram, will tire of perpetual travelling and return to the more convenient house in town; and although at the moment this type of residence is of less interest to the Town Planner than that which is about to be erected under the "Act," its importance and possibilities should not be entirely ignored. In this octavo work of 100 full-page illustrations and some interesting letterpress Messrs. Richardson & Gill have contributed a much-needed work on the best types of Town Houses. To compare the houses illustrating the different periods is to be convinced that the Formal Classic period of 1760 to 1820 is infinitely more refined and more worthy of resuscitation than the earlier and more fatuous period which commenced in the middle of the 17th century; that No. 1, Bedford Square, and 20, Portman Square, are superior to Schombert House, Pall Mall, and most of the work in the Temple. To the architect the book would have gained had it confined its attention to a narrower and, we would add, later period. To the connoisseur as a work on London Houses it is perhaps insufficiently catholic in its view.

S. D. A.

Architects' and Builders' Journal Christmas Number

The large annual edition of the *Architects' and Builders' Journal* is always a valuable number dealing, as it generally does, with the principal buildings of the past year. But this year it has a special value for those interested in housing, for it illustrates no fewer than 40 examples of houses at Hampstead and Gidea Park, with plans, and in many cases, detail drawings. This gives at a glance the latest examples of smaller English domestic architecture. It is interesting to note that with very few exceptions the long low casement still reigns supreme. As a record this number is invaluable.

Better Binghampton

This is the title of another of those studies of American towns commissioned by a Club—in this case the “Mercantile Press Club,” and presented to the citizens as an incentive to civic improvement. The Report has been prepared by Mr. Mulford Robinson, and it appears to us to be as sound and thorough as the generality of his work. We have now on our shelves many of these studies, and we feel that to Americans they must be of great value in giving suggestion far beyond the immediate object of each particular one. We wish there existed a similar series of studies of English towns—they would be most useful to those who are preparing Town Planning schemes; but apparently it is rare to find such enlightened bodies in this country spending money on mere preliminary study.

Taxation of Land Values in American Cities

Mr. Benjamin Clarke Marsh's new book is an admirable summary of the arguments in favour of taxing the site heavier than the structure as “the next step” (to quote the subtitle) “in exterminating poverty.” The whole, of course, is treated from the American point of view, but the chapter on “Some fiscal reasons for taxing land values heavily” contains general principles which may be applied irrespective of country:—

1. “The patrimony of the state must not be impaired,” while, too, “taxation must be equal,” and these conditions heavy taxation of land values meets.

2. The tax upon land cannot ordinarily be shifted, and a tax which can be shifted is always bad from a fiscal point of view.

3. Land cannot be hidden as can other sources of revenue, and as its value is always increasing automatically, it is a certain and definite source of income—which can be most readily and cheaply collected.

4. Taxation of land values is an adequate source of revenue for every city of America.

5. Heavy taxation of land values would reduce the annual municipal expenditures for the acquisition of land for municipal purposes.

6. Heavy taxation of land will facilitate the reduction of the city debt.

7. Heavier taxation of land would encourage the logical and economic development of cities.

The methods and degrees of taxing land values are drastic in their suggestion :—

1. Lower assessment of buildings than of land, and reduction in assessment for depreciation of buildings through age.

2. A lower rate of taxation on all buildings and personality than on land.

3. Exempting all buildings entirely from taxation.

4. Exempting from taxation certain buildings which conform to a high standard of excellence, either for a term of years or permanently.

5. Assessing all public improvements upon property benefited.

6. Excess condemnation of land.

7. Taxation of increment of land value.

8. Municipal ownership of land.

“The most immediate, practical, economic, and just method of taxing land values in American cities—in which land and improvements are separately assessed—is a heavier rate of taxation on land values through a lower rate of taxation on all buildings and personality.”

Mr. Marsh's solid work on the New York City Commission on Congestion of Population, is a guarantee of the thoroughness with which he has gone into this question, and the mass of information which he has tabulated is of great interest.

CHRONICLE OF PASSING EVENTS

New Western Approach Road to London

The Road Board has called a conference of local authorities to consider the creation of a new approach road from the West, somewhat on the lines of the Chertsey route suggested by the Traffic Report (see Plate 101). The Road Board intimated that they were prepared to contribute half the cost of a new 80-foot road, estimated to cost £1,750,000.

The road would be carried out and its direction settled by the local authorities through whose area it would pass, the position of the Road Board being merely that of contributors.

This is the first great piece of work recommended by the Traffic Branch of the Board of Trade to be taken seriously in hand, though we regret to notice that an 80-foot road is suggested instead of 100 feet as recommended. The route laid down in the 1911 Report joins up with the Cromwell Road and passes through Kensington, Fulham, Hammersmith, Chiswick, Richmond, Twickenham, Staines, and Sunbury-on-Thames.

A New Road in the Wirral Peninsula, Cheshire

We record the creation of another important highway in the new road which Sir W. H. Lever proposes to carry through his recently acquired estates in the Wirral Peninsula. The proposed road connects up with one of the main arteries out of Birkenhead and forms an alternative route to Chester; it also opens up a large tract of land which, in the immediate future, will become much sought after for residential purposes in connection with Liverpool. It will also provide a valuable direct road for bringing the farm produce into Birkenhead, and we imagine that probably some co-operative transport system will be arranged by the Wirral

farmers. The direction is taken very wisely so as just to miss the old villages, which it at the same time links up without destroying their charm. The road ends at the village of Thornton Hough, which is well known as containing some of the most charming modern domestic work in the country. It might be called the rural pendant to Port Sunlight.

As it is anticipated that there will be a considerable amount of fast traffic along this road, it has been decided to form circular places at all points of intersection and change of direction. By placing a green or other object in the centre of these places traffic will be guided round them and danger of collisions avoided. The over-all width of the road will be 120 feet, and it will contain three tracks and six rows of trees. As it would be manifestly ridiculous to construct this vast traffic artery at once, only the central track, some 20 feet wide, will be paved, and the rest laid down in grass; but the trees will be planted, so that when the full traffic surface is required it will form a continuous leafy avenue. Such magnificent foresight appears only possible in this country through private munificence.

Authority from L.G.B. for Preparation of Liverpool and Hanwell Town Planning Schemes

Authority was given last December to proceed with the preparation of these schemes, which are described on another page. Both presented somewhat similar features, and the example of making use of the Act for quite small areas (198 and 88) will probably be followed elsewhere. It would be interesting to find out exactly the cost of the preparation of a small scheme of this nature, and we hope that we may be in a position to give some figures at a later stage.

Sheffield Town Planning Schemes

On January 17th was held the Local Government Board enquiry into the Sheffield Town Planning schemes, under Mr. Thomas Adams. We give some further particulars of these schemes on another page and hope still further to deal with the matter in our next issue. The three schemes which are at present before the Local Government Board, containing 490, 104, and 527 acres respectively, are merely the first instalment of a series of schemes which are intended eventually to include the whole of the undeveloped land within the boundary. Sheffield is very well off in this respect—namely, that it can surround itself with a great ring of Town-planned areas without going outside the boundary. The total area is 23,662 acres, and up to the present only 7,887 of these are built over.

Some opposition was offered at the enquiry to the first scheme, owing, it appears, to the suggestion having been made that the number of houses per acre in one part of it was to be different to the limit in another. The Inspector, however, pointed out that these questions did not enter into the present stage, which was merely occupied with the question as to whether or not the land was suitable to be included in a scheme.

The third scheme, which was not only the largest but much the most important, deals with the housing of the workmen employed in the vast group of steel works, in close proximity, but under healthy conditions; it is satisfactory to report that in this area complete co-operation and harmony with the landowners has been experienced so far.

During the enquiry a complaint was made by Mr. E. M. Gibbs, F.R.I.B.A., a local architect, who had been appointed a member of an Advisory Board which had never been consulted. The complaint was endorsed by the *Sheffield Daily Telegraph*, which alluded to a certain feeling of dissatisfaction that such an important and

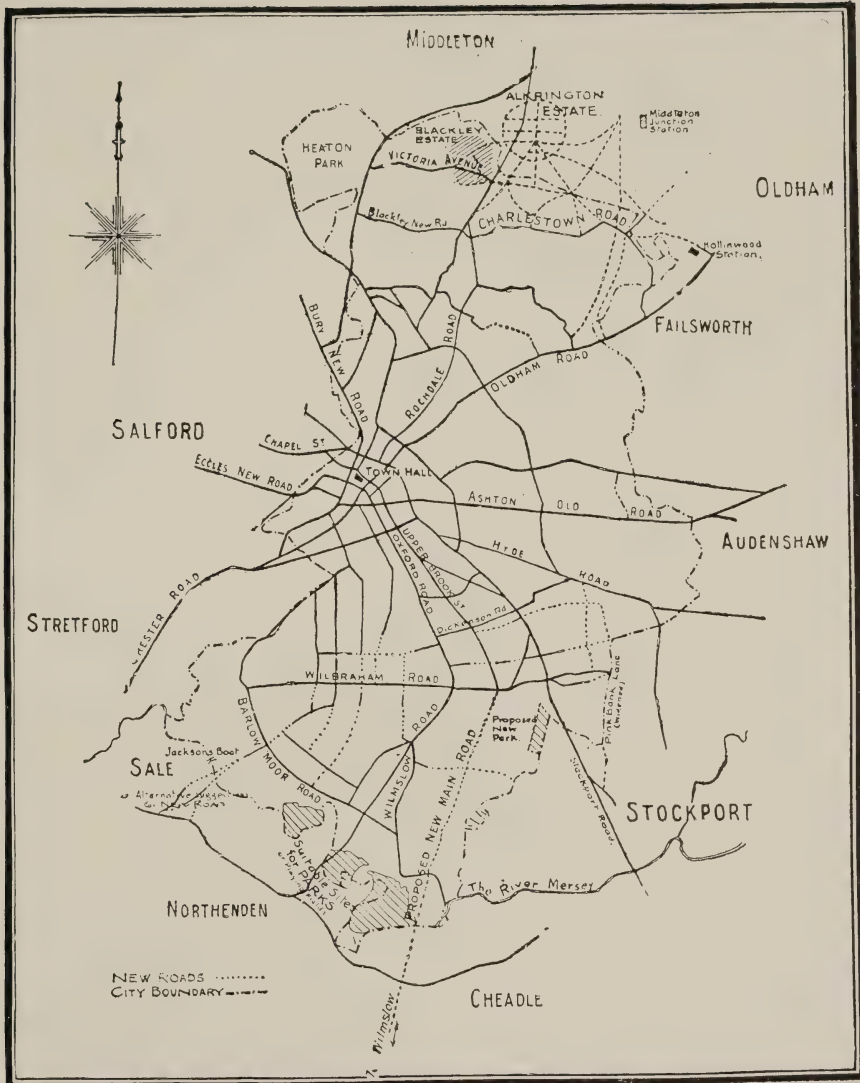
far-reaching matter as Town Planning should be kept an official preserve.

"That Advisory Board has been called together once, and once only, and in labelling that a 'farce,' we are not using a word one whit too strong. Indeed it is worse than a farce, for to invite professional men of the eminence of these five gentlemen and then to treat them with what is little better than open contempt, is a proceeding which comes perilously near to insult. Professional men in Sheffield have rendered the Corporation notable assistance in many ways in the past. The treatment that has been meted out to this Advisory Board is hardly the way to secure a continuance of that assistance."

"Another complaint we have heard in connection with Town Planning concerns the attitude adopted by at least one very important official towards outside advice. . . . methods of local government have undergone a vast change in recent years. They are coming to be founded more and more on the co-operation of persons concerned and less and less on the autocracy of individual officials. . . . Negotiation, conciliation, and agreement are the watchwords of modern local government. They represent an admirable and entirely beneficial revolution."

Manchester Town Planning

As yet the name of Manchester has not appeared in any of the published lists of towns contemplating taking action, but the *Manchester Guardian* for February 20th publishes a road plan, which shows that the Town Planning Committee has been quietly at work on that most necessary preliminary to the initiation of schemes under the Act—the lines of traffic communication with surrounding towns and districts. Manchester, perhaps, resembles London more than any other town in the country in the way of being the centre of a vast population all vitally connected with it. One of the most important new roads suggested is a highway continuing Upper Brook Street in a direction



PRELIMINARY PLAN SHOWING MAIN TRAFFIC ROUTES.

MANCHESTER.



GENERAL PLAN SHOWING MESSRS. LONGBOTTOM
AND CULPAN'S SCHEME

HALIFAX COMPETITION

almost due south. This will form an uninterrupted direct route to the Town Hall, and will relieve Wilmslow Road and Oxford Road of some of its traffic. A straight stretch of highway from Oldham Road to Middleton Junction will also be most valuable. The Alkrington Estate [an owner's scheme under the Act] and the Manchester Corporation's own Blackley Estate are also being considered in conjunction and should form a valuable buffer of open building between the two towns. Arrangements with Stockport are also being made to work in with the proposals for their Town Planning scheme. Another important feature is the suggestion for playing fields on the low-lying ground on the Mersey, near Northenden.

We illustrate the plan from the *Manchester Guardian*, which, of course, must not be taken as final, but which is an interesting example of the preliminary work to be undertaken before actually settling on areas to be included in a scheme, and also illustrating the value of co-operation with neighbouring authorities for this most important question of inter-communication.

Halifax Town Planning Competition

In our Editorial we allude to the value of the competition promoted by the Rt. Hon. J. H. Whitley, M.P. for Halifax. The assessor was Professor Adshead, and we herewith append his report. The following are the names of the successful architects: First prize (100 guineas), Messrs. Longbottom & Culpan; second prize (30 guineas), Messrs. Medley, Hall, and Son; third prize (20 guineas), Messrs. C. F. L. Horsfall & Son.

Professor Adshead's Report.

In response to your invitation I have pleasure in reporting upon the eight designs submitted in competition for a Town Plan of Halifax. In my survey of the district, I wish to acknowledge the kind assistance of Mr. Lord, your Engineer

who arranged for a member of his staff to accompany me.

Before proceeding to report on the designs I desire to express my appreciation of the value of the competition as a preliminary study in the preparation of a Town Plan under the Act, and I wish to compliment the competitors upon the care and labour which they have bestowed upon the presentation of their schemes. Perhaps over much attention, however, has been given to what is after all only road planning, to the neglect of those underlying social and industrial problems which entirely control the disposition of towns. The allocation of area to purpose is one of the most important powers under the Act. This, however, does not detract from the value of many of the schemes in detail.

It must be obvious to a close observer that Halifax in common with similar towns has not yet seen the last of the distributing influence of her tram system. The growth of the town during the last 15 years, the period of their inception, needs carefully to be analysed in order to forecast possible developments which may be brought about by their influence in the near future. The location of new industries, machine and engineering works, underclothing businesses, toffee manufactories, jewellery works, &c., which have been added to the woollen factories, are significant of future industries that may be introduced into the town. And again the modern tendency for industries to be conducted in the near locality rather than in the centres of towns, with housing accommodation for operatives, in the form of industrial villages clustered around, is a factor to be reckoned with here. Finally, the condition of railway communication, and in particular the effect that would be produced by a termination of the competition between different systems at present everywhere subsisting, a condition that might conceivably be brought about in the near future in view of the national tendency

towards state control and amalgamation, must be taken into consideration.

These are examples of underlying social and commercial activities which need first to be studied in detail and upon the virility of which the future development of the borough will entirely depend, and we must ever remember that Town Planning can never entirely alter these fundamental factors. Town Planning can only control and direct.

It is apparent that the earliest industrial development occurred along the River Valley. This was at first due to the advantage which accrued from being close to a running stream, a position which was later more firmly established by the railway systems which adopted a similar course. The eventual congestion of industrial sites in the River Valley in close proximity to Halifax, and the introduction of steam power instead of water was no doubt responsible for the industrial developments in the higher parts of the town, which occurred about the middle of last century. The construction of the High Level Railway from Holmfild to St. Paul's Station, which was opened some 25 years ago, has since encouraged development in this direction. This railway now accounts for many of the latest and most important industries having been established here. Another centre of industrial activity has developed around Sowerby Bridge. The proximity of this area to both canal and railway systems, considered in conjunction with the cheapness of land as compared with sites in closer proximity to Halifax, resulting in what may be described as an independent industrial area, but one which should be taken into consideration in developing the parent town.

But we have not only to take into consideration existing industrial sites, but also sites which might reasonably be expected to develop into industrial areas in the near future. Whilst convenient access to a railway system is essential and to the canal an advantage, with the power

systems of the future, both steam, electricity, and gas, and ample water supply, there is not the same necessity for connection with the River Valley; but it is always essential, that an industrial building be so situated that the operatives can conveniently be housed in the vicinity. It is true that a few of the better class artisans reside the distance of a penny fare by tram, and in exceptional cases a twopenny fare, from their work, but it will be found that the great majority will prefer to live in close proximity. Future sites for industrial developments other than those isolated ones that may be obtained in close connection with existing similar sites would appear to be situated along the canal, between Sowerby Bridge and Copley, along the West side of the High Level Railway, between St. Paul's Station and Pellon Station and about Holmfild Station. No doubt a station and sidings could be constructed in connection with the High Level Railway in the Wheatley Valley. The connections between this area and the business centre of Halifax are, however, at present inadequate; moreover, owing to the fact that smoke from here would be driven by the prevailing winds directly over the best part of the town, it would not seem advisable to encourage industries in this direction.

Having decided upon the sites which economically are best suited to an early industrial development, we have next to consider the advisability of directing, controlling, and restricting these in so far as the amenities of the district are concerned.

In the first place, it is essential that the prevailing winds carry the smoke away from the town, and in the second place it is desirable that the scenery in the residential districts be preserved as far as possible from the molestation of unsightly mills and factory developments.

With these points in view I would modestly suggest that restrictions be placed on further industrial developments in the

Wheatley Valley, and that such developments be confined to the River Valley below Holmfield, and between Sowerby Bridge and Copley, and that certain limitations be placed on any further development in the neighbourhood of St. Paul's and Pellon Stations. An industrial area having been decided upon, land in the immediate neighbourhood and easily accessible thereto, will need to be developed as residential areas for operatives.

The second factor which will influence the preparation of a Town Plan is the direction of existing and any projected tramway routes. It would appear that sufficient land has already been opened up by the present tramways to provide eligible building sites for many years to come. Of these different arterial systems perhaps none will have a more immediate influence upon estate development than that terminating at High Road Well, the two systems that connect Sowerby Bridge, and that which, passing through Illingworth, terminates at Ogden. Whilst these tramways will undoubtedly influence immediate development along and in close proximity to their routes, at the same time it must be borne in mind that desirable areas like the Wheatley Valley and Shibden Dale would, if made more accessible, become residential districts at an early date. Being well sheltered and commanding magnificent views, it would seem that they might be more attractive than other areas in the neighbourhood. The high plateaus of High Road Well, Ovenden, and Illingworth, on account of their easy gradients, offer no great difficulties in the way of building and road construction, but it is extremely doubtful whether such exposed sites would justify road making for more than a few scattered residences, suited for such of the population as care to live in a very bracing locality. I cannot help feeling that competitors, possibly influenced by the suggestions set out in the conditions of the competition, have unduly emphasized the importance of these areas as residential districts to the exclusion of

others less accessible but possibly more desirable.

Regarding the general distribution of the classes, we must recollect that all areas within the radius of the penny tram would be accessible to the artisan class. It does not follow, however, that all such areas must be entirely given up to this class. As already stated, the majority of the operatives prefer to live in close proximity to their work, but as a general principle it may be accepted that the less accessible sites, and such as command the best views, are not likely to be affected by a great influx of the artisan class, and it would be well if sites in such positions were reserved for houses of a higher rental.

Regarding the actual planning of the roads, the extreme gradients and the exceptional topography of Halifax provides problems not met with in ordinary practice. The application of the Town Planning Act, providing as it does dispensations in the by-laws, offers opportunities for the construction of cheap residential approach roads and for paths and secondary roads of exceptional types, which, if adopted, would open up sites at present quite inaccessible under the ordinary by-laws. This is one of the most important points in connection with the adoption of a Town Planning scheme with reference to Halifax. Unfortunately, none of the competitors who have submitted designs appear to have fully availed themselves of the possibilities of the Act in this connection.

With these general observations I will now proceed to a short criticism of the designs submitted.

The competitors appear to have practically confined their attention to those areas suggested in the conditions as being suitable to be dealt with in detail, and if instead of elaborating these they had dealt more carefully with the whole of the environments of Halifax in their general plan, the scheme for detailed developments of chosen areas would have been more convincing. Unfortunately, not

one of the competitors appears to have given any consideration to the possibility of developing Wheatley Valley, and whilst several of them have taken into consideration small but none the less important areas within the immediate proximity of the town, as for instance Salterhebble and Well Head Fields, others have devoted more attention to the complete development of areas unlikely to be developed for many years to come. The author of the design placed first appreciates to a greater extent than any of the others the fundamental conditions which will control the future development of the town. Anticipating an industrial expansion between Sowerby Bridge and Copley, he has wisely laid out the land on the N.E. side of Wakefield Road, as an area suitable for cottage property for the operatives, but has shown an unnecessary number of roads. He provides a new main road between Pye Nest and Skircoat Green, along the lower edge of Scarr Wood. It would certainly be advisable to connect Skircoat Green more directly with Sowerby Bridge, but this would probably be better effected by connecting Skircoat Green and the Wakefield Road with a junction about Sterne Mills Bridge. He continues his main road across Pye Nest; its continuance here is of very little importance; indeed, this exceptionally fine area, bounded by the upper Burnley Road, Rochdale Road, and Pye Nest Road should remain undeveloped to be eventually laid out as a park for the benefit of Sowerby Bridge. His development of the ridge below Warley House is exceedingly good, providing as it does a series of residential roads which adopt themselves to the contours and the beauties of the landscape. Here, again, however, he appears to show an unnecessary road between Cliffe Hill and St. John's Church. In his development of High Road Well he has utilised and widened existing roads, and has planned them in such a way as that they will adopt themselves to a future development of the present golf course. It is doubtful if this golf course

would be retained in view of the complete development of this area. This development of the Ovenden area is very good so far as the main roads and distribution of the different classes of residents are concerned. He recognises that the south-eastern boundary, which is in close connection with an industrial area, would naturally come to be developed as cottage property, and also that the western ridge would most likely be appropriated by the middle class. His shopping centres, which will be necessary to supply the immediate needs of the locality, are conveniently placed. Recognising that the Illingworth area is not likely to be immediately developed, he merely indicates a general distribution of subsidiary roads suited to a residential estate for a good class. He devotes the eastern corner of this area to industrial purposes. This would appear to be a mistake, as it is a considerable distance from Holmfild Station, and the full development of sites round this station for industrial purposes would meet all conceivable needs. He treats the Shibden Dale area with new roads running along the contours of either side of the valley. This is a very satisfactory arrangement as preliminary to developing it as a residential estate. His treatment of the Northowram area is on similar natural lines. In each of these areas he provides a small space for industrial buildings. At this distance from the railway, sites for this purpose would be unsatisfactory and would certainly be a blot on what might otherwise be regarded as ideal residential estates. With the exception of the small areas mentioned, which he marks off as suited to industrial purposes, a distribution both inconvenient and destructive of amenities, this competitor has produced a scheme which in its main features would prove a satisfactory solution of the problems involved. His system of road planning is much better suited to the peculiar conditions of the locality than is the case with any of the other designs submitted. Where the natural configuration of the site

is very pronounced, and the gradients steep, his roads would enhance the landscape, more formal treatments being suitably utilised where the surface of the ground is level, as is the case in the Ovenden area. I should like especially to compliment the author of this design on the careful presentation of his scheme. His draughtsmanship is excellent, and the perspective which he submits of a typical cottage block is a very beautiful piece of work.

The author of the design placed second has not entirely confined his interest to those areas suggested to be developed in the conditions, and whilst he recognises that industrial development will take place in the neighbourhood of Pellon and St. Paul's Stations, he has extended the area of their distribution unnecessarily far in the direction of High Road Well. His development of the Ovenden and Illingworth areas are largely dependent upon industrial developments about Holmfild Station, and whilst he schedules small areas in the neighbourhood of the Infirmary and Savile Park as suitable for development under the Act, he omits to include any reference to Shibden Dale and Northowram Valley. He suggests the preservation of Long Wood and the other open areas lying along this ridge as suited to be permanently retained as open spaces, but he neglects to notice the area between Sowerby Bridge and Copley, a very suitable area for a scheme under the Act. He preserves and enlarges the present golf course at High Road Well, and whilst there may be no great objection to this, to abut it immediately upon an industrial area is certainly a mistake. His shopping space at the opposite end of this area is also very inconsiderately placed. Altogether this design takes second prize on account of the appreciation it shows for the development of the Ovenden and Illingworth areas, more especially the excellent way in which these have been connected with the industrial area in the valley below. His suggestion to develop the outlying

area at Ogden as a bungalow estate and recreative centre has no doubt a practical use, but for this purpose it would require to be laid out in a more rural way. The proposed new connection between the Ovenden area and the proposed Circus in Crown Street, desirable as it might seem to be, is quite impracticable. A new connection across the valley would certainly be desirable, but it is doubtful if it would be feasible to make a connection with Pellon Lane considering the depth of the valley and the enormous expense that would be incurred in the construction of a bridge.

The design placed third suggests an allocation of area to purpose, probably in a better way than any other scheme submitted. The majority of the main roads shown are well disposed, and had this design been more carefully presented in detail and shown a better appreciation of the contours and distribution of the different types of residences that would have to be built, it might have taken second place. Nothing can be more destructive to the beauty of the surroundings or more costly than the construction of parallel roads, such as are shown about Pye Nest and in the vicinity. The author of this design shows the Ovenden district in detail. It would be quite impossible to erect semi-detached residences with 25 feet frontage and let them at £15 per annum, and yet the greater portion of the estate is covered with such a type of residence in a very monotonous and unnatural way. Insufficient attention has been given to the social conditions which underlie residential developments of this nature.

The author of the design marked "08" devotes considerable attention to improvements in the centre of the town, and whilst no doubt improvements here may be urgent, they have no reference to a scheme under the Act, and are consequently not asked for in the conditions of the competition. He is one of the few competitors who has considered the

development of Well Head Fields, but the development he suggests would be extremely costly, and quite unsuited to the peculiarities of this area. This area should certainly be acquired as a public park, and, providing a new road were made connecting Glen Terrace and Heath Road, with suitable residences facing the proposed Park, very little more would require to be done than to lay it out with footpaths and perhaps ornamental water. At the base, in its Northern side, nothing could be more beautiful than the facade of Well Head House and the clumps of trees which surround the neighbouring residences. His development of the suburbs, High Road Well, Ovenden, and Illingworth, are much too formal, and he appears to have quite lost sight of the influence of the adjoining areas and of the suitable separation of the different classes, which is an essential feature of residential development.

The author of the design marked "03" fails in not having devoted sufficient attention to those areas which call for immediate development. His system of laying out roads on High Road Well would prove exceedingly costly, and, in view of the exceptional open character of the town, the number of greens and open spaces which he provides are excessive. Except that he shows an industrial area close to Shelf, which would be quite inaccessible, his allocation of areas is good, as also are the general distribution of his roads about Warley Town, and had he considered more carefully the distribution of the different classes and provided a more reasonable arrangement of open spaces, he would certainly have been better placed.

The author of the design marked "05" has evidently devoted his first attention to the provision of a sort of Parkway, which, he indicates, should extend along either side of the Wheatley Valley, across the West End Golf Links, along the Scarr Wood, and back across the town. In this he has evidently been influenced by the plans which he has seen of American

towns. A development of this kind is an undoubted acquisition in a fashionable city which is built on a plain, but to regard this as a matter of first importance in a town like Halifax, surrounded as it already is by some of the most beautiful scenery in England, is undoubtedly a mistake.

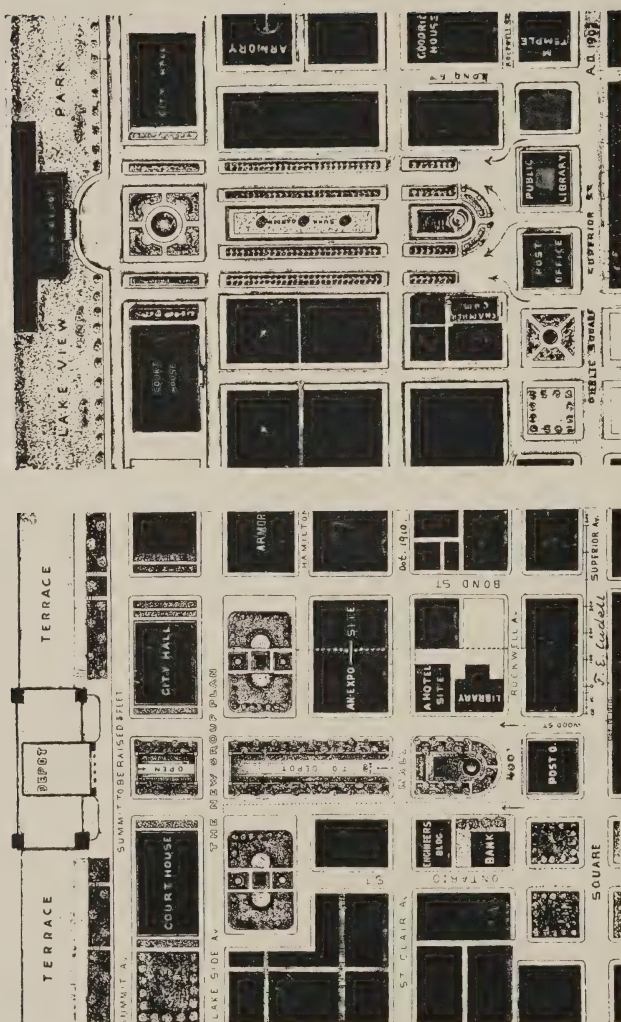
The author of the design marked "01" appears to have based his development on the assumption that each area will be separately dealt with as a complete industrial suburb. The sites which he reserves for manufacture are dotted about quite regardless of any connection with railways, canals, or any other system of goods distribution. Although we must recognise that the industrial suburb is a factor to be reckoned with in the modern development of towns, its application to practically every available area is certainly a mistake.

The author of the design marked "06" seems to have unduly confined his attention to the development of the Ovenden plateau. Amongst the areas scheduled for industries he shows a large space in the Wheatley Valley. Considering that this Valley lies in the centre of the town from which blow the prevailing winds, it would be undesirable to encourage additional industries in this direction. Practically all reference to any development about Illingworth, High Road Well, in the Calder Valley, Shibden Dale, and Northowram is omitted. Altogether this design hardly justifies the subject.

S. D. ADSHEAD.

Co-partnership Tenants, Ltd.: Fifth Annual Report

We have received the 1911 Annual Report of the Co-partnership Tenants, which contains much valuable information on the growth of this great movement. We note that the 14 societies which are affiliated to the central body now own 652 acres, and that the estimated value of land and buildings on December 31st, 1911, was £1,072,600; the estimated value



Suggested Plan

CIVIC CENTRE
CLEVELAND

Authorised Revision

when completed will be nearly $2\frac{1}{4}$ millions. In 1903 the value of Ealing (the sole estate) was £10,237. Up till this year Ealing has been the most valuable estate, but the phenomenal growth of the Second Hampstead Tenants, which in three years has risen from £1,730 to £240,000, has placed Ealing second. The First Hampstead Tenants (£140,000), and the Fallings Park Tenants have reached their full value (£20,000), the Manchester Tenants are within £400, the Derwentwater Tenants within £500, and the Sevenoaks within £1,500 of their limits. The largest acreage is the Liverpool Estate (185 acres), but as this was only begun in 1910, its present estimated value is £33,500 out of a possible £500,000.

“As the facts already given show, the year has again been one of substantial progress for the Society. Perhaps the healthiest feature in the year's development has been the growing number of cases in which advantage is being taken of the skill and experience of the Society's staff by societies which are able to raise their own capital. Where the Co-partnership Tenants, Ltd., becomes responsible for the larger part of the capital required for the development of an estate, it must obviously ensure a commensurate control. Where, however, societies are able to raise their own capital to develop estates that is in itself a very fair guarantee that those responsible are equal to the task. At any rate those who find the capital believe them to be so, or the capital would not be forthcoming. We have, therefore, two types of societies growing up—one in which the chief control centres with Co-partnership Tenants, Ltd., because it finds the bulk of the capital and all the initiative to develop the estate; and the other where the capital and initiative are provided locally, and in consequence the estate is locally controlled. It is scarcely necessary to add that the Board will welcome these self-sustaining societies, for the more public-spirited men, with business experience, who can command public con-

fidence and capital, are brought into the movement for establishing “public utility” Housing Societies, the greater will be the progress. Further, as few of them will follow exactly the same model, we shall have the great benefit of variety in experiment within reasonable limits, which will be helpful in showing what modification in methods and policy may be desirable in the future.”—[*Extract from Fifth Annual Report.*]

Cleveland

It is rather interesting to hear a very outspoken criticism to the Cleveland Civic Centre scheme, which we illustrated in the second number of our second volume. We have had several communications from Mr. F. E. Cudell, a retired architect of Cleveland, in which he strongly protests against the adopted scheme chiefly on the score of the excessive width of the Mall, and the balancing of the proposed Library with the Post Office at the head. We illustrate Mr. Cudell's alternative plan, which also provides a more open site for the Court House and City Hall, and we add his remarks. It must be remembered, however, that the authors of the original scheme were three architects of great repute—Mr. Burnham, of Chicago; the late Mr. Carrère, and Mr. Arnold Brunner.

Town Planning Lectures in Manchester

A Committee to promote public interest in Town Planning and the adoption of the Town Planning Act has recently been formed in connection with the Department of Civic Design at the University of Liverpool; the Rt. Hon. John Burns has consented to act as President.

The first course of lectures has been arranged at Manchester in conjunction with the Manchester Education Committee, and it is in course of being delivered in the Municipal School of Technology. The following is a syllabus of the Lectures:—

(1) "THE NEED
FOR TOWN PLANNING."

Professor S. D. ADSHEAD, F.R.I.B.A.

Industrial development in the immediate past—Urban growth—Railway extension—Inelastic by-laws necessary to cope with sudden changes—Need for by-laws more adaptable and local in application—The Town Planning Act, the remedial measure.

Town Planning in the future—The inter-relation of towns—"Con-urbations"—Electrified railway systems—Self-propelled vehicles—Modern industrial systems—The demand for greater social amenity.

(2) "EXAMPLES OF TOWN
PLANNING—INDUSTRIAL AND
OFFICIAL."

Mr. P. ABERCROMBIE.

Individual efforts as object lessons—Model industrial villages, the garden city, garden suburbs, and co-partnership estates—English and continental examples—Their application as normal town-growth—Town Planning Act introduces officially principles already applied unofficially—Principal objects aimed at—Comprehensive planning, improved communication, delegation of areas for special purposes, limitation per acre, incorporation of amenities, park provision, preservation of objects of interest—Examples from different Town

Planning Schemes: Sheffield, Ruislip, Birmingham, Liverpool, Walthamstow, Finchley, Hanwell, Twickenham—Co-operation between neighbouring authorities—Suburban Town Planning outside city boundaries.

(3) "PARKS AND OPEN SPACES IN
RELATION TO TOWNS."

Mr. T. H. MAWSON, Hon. A.R.I.B.A.

The placing of park systems in relation to the town or city—Recreative parks and children's playgrounds—The new movement for park systems in America—Examples from Boston, Philadelphia, Chicago—The intensive use of open spaces—Continental examples.

(4) "THE APPLICATION OF THE
TOWN PLANNING ACT."

Mr. A. SOUTAR.

The necessity for co-operation between the different interests—Development schemes—Protective schemes—Questions of limitation; how met?—Compensation—Cost of road construction, contributors: Owners, local authorities, road board, &c.

Special provisions—Typical cases in the working of the Act at Ruislip.

The Committee hope to arrange similar courses of lectures in other towns during next session, and they intend to modify the lectures so as to suit different localities.

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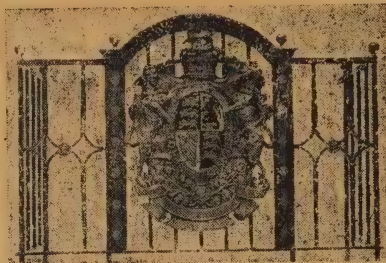
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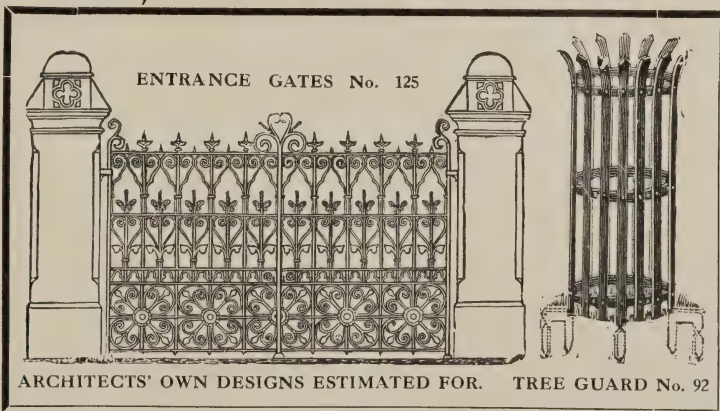
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